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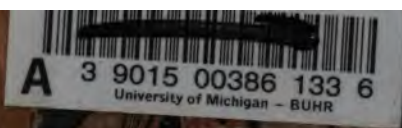
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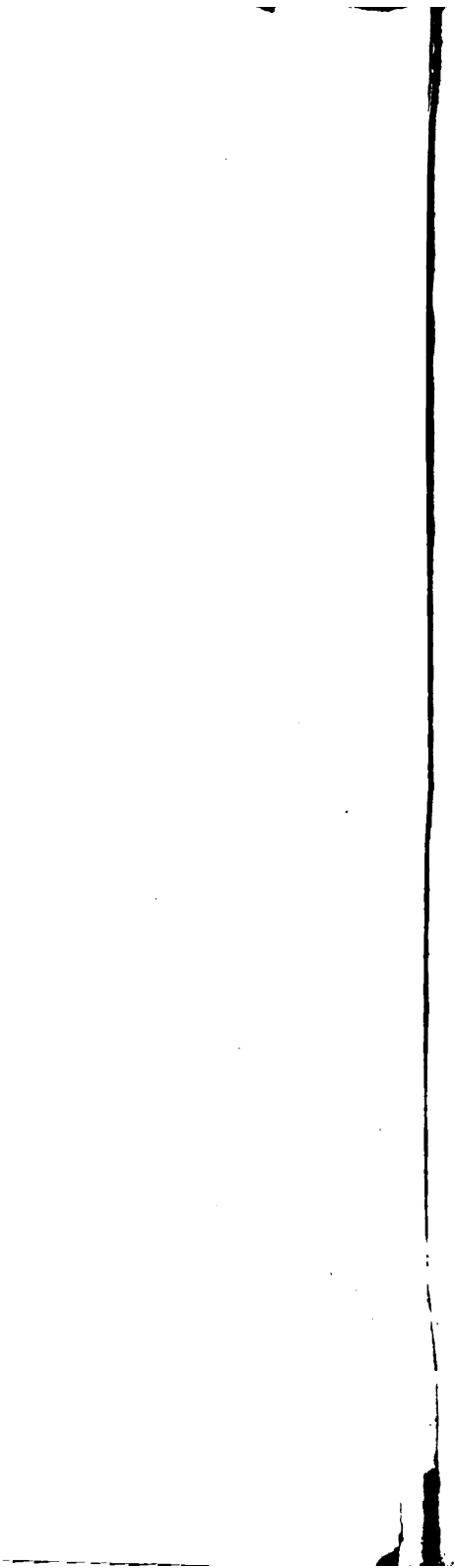


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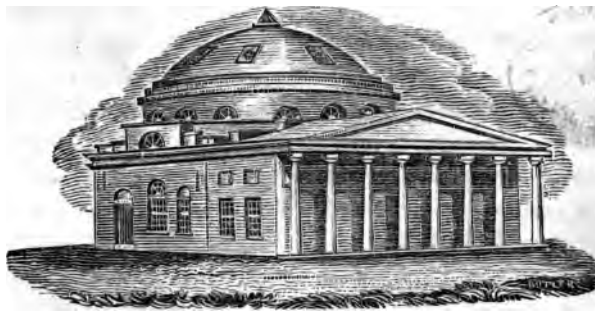
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EDITED BY  
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*Association of Physicians and Surgeons.*

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For many fortunate discoveries in Medicine; and for the detection of numerous errors,  
the world is indebted to the rapid circulation of *Monthly Journals*.—*Rush.*

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UNIVERSITY OF MARYLAND.

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THE  
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February, 1830.

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**Prospectus.**

It has been often a subject of censorious remark that, while most of the important cities of our country are each provided with some periodical record of medical facts, the Profession of Baltimore should be destitute of such an important auxiliary.— Every populous community, and especially one which possesses its dispensaries, its infirmaries, and a medical school, presents a wide field for the observation of those facts from which principles and precepts are deduced. Almost every day, events transpire which are worthy of a place in the archives of science— data which may indeed materially conduce to the advancement and perfection of our art. Unless such facts be recorded, they perish with the memory of those who may have witnessed them. They fall to the earth, like the rich fruits of a tropical forest, where there is no hand to pluck them.\*

It may indeed be said that already there are in our country many channels through which such information may be conveyed to the profession, and journals amply sufficient to record all important facts. Yet such information, we very well know, will not spontaneously flow into these channels. It must be accumu-

\* When this prospectus was first penned the writer had no knowledge of any other similar work being contemplated in this city.

lated by those under whose observation the facts occur, and who have an interest in their publication.

In the city of Baltimore, at the present time, every thing which industry, enterprise, and public spirit can advance seems to be receiving a new and powerful impulse. The electric spirit of improvement pervades every department of our community.—Why then should the literature of our profession languish among us, and we be dependent upon others for a medium through which to address the medical public?

It is known to many of our professional brethren, that the enterprise which we now publicly announce has for some time been in contemplation. We were unwilling, however, to pledge ourselves for its accomplishment, till there should be obtained some satisfactory assurance of success through the aid of our professional brethren. That assurance we think we have obtained, and shall now enter upon our assumed duties, confident in the aid, good wishes, and patronage of a large portion of the medical community. We present ourselves, indeed, but as the organ of the profession, and are pledged to subserve its interests by an impartial and liberal discharge of our duties, without regard to pecuniary interest, or self-advancement, other than that which may spring from such reputation as a just community shall award to our labours.

We, therefore, call upon our professional brethren for their approbation of our enterprise, their aid in our labours, and their indulgence in relation to our faults. We especially appeal to the alumni and pupils of the University of Maryland to render their support to an undertaking which, if successfully accomplished, cannot fail to further the strenuous efforts that are now being made to elevate the character of their Alma Mater.

We design that our work shall be, not only a record of such facts as may occur within our sphere of observation, but a concise abstract of all recent and important information with which the progress of science may present us. For this purpose we are now receiving all the valuable foreign journals, and shall al-

so be regularly furnished with all new and valuable medical works. These we shall analyse with the utmost care in order to present our readers with the useful part of their contents in as brief a space as possible. Our ambition will be, thus to enable our readers to keep pace with the progress of the most progressive and mutable of all sciences.

Our plan will comprise four departments:

I. Original Essays.

II. Analytical Reviews.

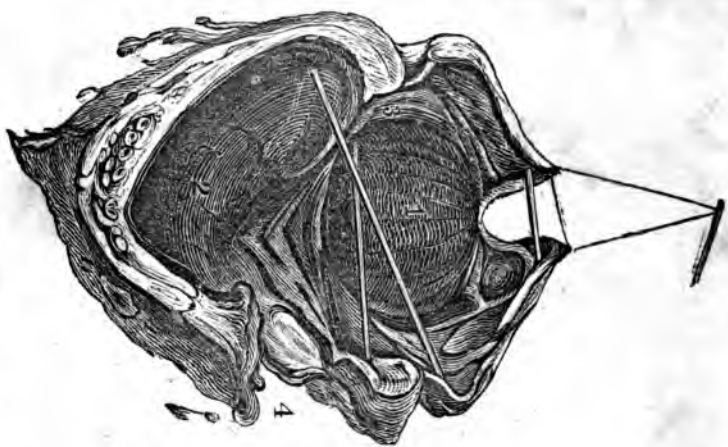
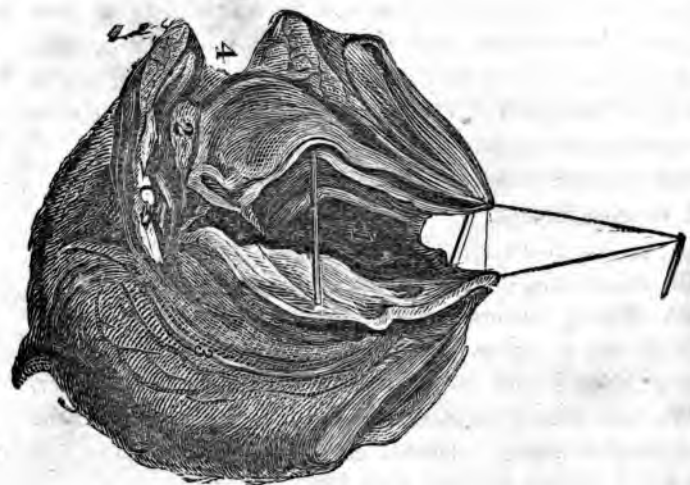
III. Adversaria, or brief articles of original intelligence.

IV. Monthly Summary of foreign and domestic intelligence.

While we recognise this arrangement, however, every department may not, for obvious reasons, be found in each number.

We have chosen the monthly form, knowing it to be far the most popular, best calculated to cherish a spirit of enquiry, and that which is most faithfully read.

The present number is a specimen of its form and execution. The number of pages will be increased as the patronage of the work extends. Terms \$3 a year, if paid on the delivery of the first or second number—\$4 if at the end of the year.



## Original Essays.

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**ART. I.**—*Hernia radically cured by an operation in which it became necessary to extirpate the hernial sack and the testis, by N. R. Smith, M. D. Professor of Surgery in the University of Maryland.*

ON the 1st of March last, Andrew Ferree was received into the Baltimore Infirmary to be treated for irreducible hernia. He had been afflicted with hernia from boyhood, but I have been unable to learn whether the case was distinguished by any thing remarkable at its first occurrence. It gave him but little annoyance till adult age, when (at what period precisely I cannot ascertain) the tumour became so troublesome and painful that he sought surgical advice, and was directed to use a truss. Being a mechanic, he undertook to contrive and adjust an instrument for himself.

The truss which he made was of course very imperfect and very rude in its operation, although it gave some degree of mechanical support to the parts, and enabled him to continue, though with suffering, his laborious occupation. Occasionally the hernia was protruded, and the difficulty of returning it seemed to increase. At last he found that, even when he had succeeded in returning what seemed to be protruded from the belly, there remained a degree of tumefaction and hardness in the scrotum and along the cord. This, however, gave him but little inconvenience, when he could completely succeed in returning the bowel and retaining it; but he found that the difficulty of effecting the reduction still increased, as did also the external tumour which seemed to cause the impediment.

It appeared subsequently, on the dissection of the tumour, that this external disease consisted of an enlargement of the cord and testicle, and an extreme thickening of the herniary sack, though for reasons which are by-and-by to be stated, this could not be very satisfactorily ascertained before the operation.

Some few weeks before he came under my observation, the bowel became strangulated, and he found it necessary to seek surgical aid. Dr. Worthington, an intelligent physician of Ann Arundel, was called in, and with some difficulty succeeded in effecting the reduction of the reducible part of the tumour.

He then resumed his labors, but, soon after, the bowel became again protruded and he found it impossible to return it. At intervals also there occurred signs of strangulation. Dr. W. was again called, but his attempts to effect the reduction were not so successful as before. The protruded viscus was evidently in some degree constricted, and the tumour of the adjacent parts had now become so great that it was impossible to employ the taxis with advantage.

Having used, without success, the means usually resorted to in such cases, and the patient remaining in a critical situation, Dr. W. sent him to the Baltimore Infirmary and placed him under my care. I found the tumour, at this time, to be nearly of the size of an infant's head. Its form was almost spherical, and the upper part of it was firmly pressed against the abdominal ring. Near the upper part, and anteriorly, there seemed to be a small tumour implanted upon the larger one of about the size of the testicle. This was soft and elastic—more so than the testicle ordinarily is, yet from its form, size, and situation, we judged it to be this organ. The rest of the tumour was very hard and unyielding. It was impossible, by pressure, to alter its form in any considerable degree. The inferior part of it was less hard than the anterior. It was very obvious that there was something very unusual in the morbid alterations which had taken place. We could discover nothing which, by its form and its elasticity, appeared to be a portion of intestine, nor any thing possessing the doughy feel of the omentum.

Occasionally the bowel seemed to become constricted, the passage of its contents was interrupted, and slight symptoms of strangulation supervened—the pulse being frequent, the belly painful, and the stomach nauseated. These symptoms would yield however to mild cathartics, horizontal posture, and fomentations, and the intestines would resume their functions.

The case was seen by Professors Potter, Hall, and Baker, in consultation with myself, and we resolved to relax the system by the abstraction of blood, rigid abstinence, and cathartics, hoping thus to be enabled to reduce the tumour by the taxis. We also directed the employment of evaporating refrigerant lotions. These endeavours were ineffectual, though carried as far as prudence would permit. The patient, after having remained in the house for two weeks, was by no means in a condition to leave it with safety. Besides that he was totally disqualified by the magnitude of the tumour for any laborious occupation, he was in perpetual jeopardy from the occasional occurrence of slight symptoms of strangulation.

My colleagues and myself, therefore, resolved that an operation should be performed, the extent and object of which should be governed by what might be ascertained, in relation to the character of the tumour, on making a free incision.

In presence of the above advisers, and other medical gentlemen, I commenced the operation by making the usual incision from a little above the external ring to the lower part of the scrotum. On carefully deepening this, I found that the whole tumour was invested by very dense and voluminous laminæ of cellular tissue. As I cautiously incised these I could discern no fibres of the cremaster, but thought, from the thickness of this investment, that I might perhaps be dividing that muscle. I endeavoured to lift the laminæ of tissue, and to divide them successively by inserting the director beneath them—but this I found impossible.

At length, as I proceeded with the knife, there occurred suddenly a copious gush of serous fluid. I then presumed that I had entered the cavity of the herniary sack, the external invest-

ments being less distinguishable than usual. To my surprise and perplexity, however, I found that I could not insinuate my finger into the supposed sack, in consequence of its strong adhesions, by cellular bands, to its contents. The contents, as far as they could then be examined, were evidently not intestines but presented a rough surface, a firm feel, and spherical form. The size of the tumour, by the discharge of the water, was but little diminished. From the partial examination which we were then enabled to make, we conjectured that the mass within must be a portion of omentum which, in consequence of inflammation, had established numerous connexions with surrounding parts. These I therefore determined to break up as far as I could. This with some difficulty I accomplished, using the handle of the knife and the finger alternately.

It was impossible, however, to pass the finger up to the ring, and I soon discovered that we had not yet reached the interior of the sack. Nor did the anterior part of the tumour, now exposed, present the appearance of the cremaster muscle, or peritoneal covering. I examined every part of its surface with the utmost care, and at length discovered a distinct fluctuation near the middle and anterior part of the tumour. After some hesitation I determined to enter this cavity with the knife. I did so, and from this also there escaped a considerable quantity of fluid, leaving an excavation of a triangular shape, broad at the surface, and narrow at the bottom. The walls of this cavity were as firm as other parts of the tumour, nor in it could we touch any portion of a protruded bowel, or approach the abdominal ring. The cavity was more than an inch deep. Here we were again exceedingly perplexed. I then took a strong steel director and pushed it in various directions against the walls of this excavation, in order to ascertain their strength and thickness. At length, on the mesial side of the tumour, I pushed the instrument into a deeper cavity, situated directly behind the triangular space. I could then feel the point of the director, within the upper and inner part of the tumour. I therefore elevated the

walls of the cavity on the point of the instrument, and cut down upon it. This was done on the inner side of the tumour.

I of course then had a considerable portion of the walls of the tumour, on the inner side, raised on the shaft of the instrument. Turning the groove of the director towards the inside, I seized a narrow bistoury, and gliding it along the groove, divided the elevated portion of the walls. Then immediately I found that I had opened the herniary sack, and that my finger was in contact with a protruded portion of intestine. The walls of the tumour, being at least the third of an inch in thickness, and very rigid, of course did not retract from the intestine. I had no difficulty, however, in passing my finger up to the ring, dilating the stricture, and returning the bowel. The true herniary sack was small, compared with the size of the tumour, and the knuckle of intestine contained in it was not large. The large portion of the tumour which was above the triangular cavity, and above and before the herniary sack, consisted of the testicle and tunica vaginalis, much diseased. At the upper and anterior part of the testicle the tunica vaginalis seemed adherent to the tunica albuginea, beneath which, at this place, the testicle was the seat of a soft sarcomatous growth, which had distended the albuginea and produced the circumscribed soft tumour, felt before the operation, and which was supposed to be the testicle.

That part of the tunica vaginalis, which enveloped the lower part of the testicle, was distended with water, and formed a hydrocele, the walls of which were extremely thick, and which formed a large part of the mass of the tumour.

When I had returned the protruded bowel, I found that the sack, together with the testicle and diseased tunica, formed a pendulous mass of disease which, during the several steps of the operation, had been separated from the surrounding parts. We were, therefore, apprehensive that, if left in that condition, especially as the testicle was much diseased, the process of healing would be much impeded, and perhaps entirely defeated.

By the advice of Professors Baker and Hall, I determined at once to extirpate the whole mass, by cutting across the neck of

the tumour, which embraced the cord and the upper part of the sack. This was accomplished with ease. The vessels of the cord, to my surprise, were found involved in the posterior part of the neck of the sack. I say, "to my surprise," because it will be borne in mind, that the testis was situated above and in front of the herniary sack, a very unusual arrangement of parts in this disease. The mouths of these vessels are accurately represented in the engraving, (Fig. II, ) they being incorporated with the walls of the sack at the lower part.

I cannot account for this arrangement but on the presumption that the cremaster muscle which, in hernia by the oblique descent, is detached from the cord by the tumour, and placed in front of it, must have drawn the testicle upward over the face of the hernia. This would the more readily occur, in this case, because of the existence of hydrocele, for by such a tumour the cremaster muscle would be put upon the stretch, and hence it would firmly brace the tumour against the ring, as is often the case in common hydrocele.

The whole diseased mass being thus extirpated, I proceeded to secure the vessels of the cord, and then to cover the exposed parts by bringing together the integuments with interrupted sutures and adhesive straps.

Although the patient had necessarily been a long time upon the table, and had suffered severely, though with fortitude, yet he did not appear much prostrated by irritation, nor did there at any time occur any considerable degree of constitutional disturbance.

The patient was then placed quietly in bed, an opiate was administered and he was directed to be furnished with the most bland and unstimulating aliments, in small quantities. On the second day there was considerable swelling and hardness in the left iliac region, along the course of the cord, together with symptomatic fever; but there was no general swelling or tenderness of the belly. A cathartic was administered which procured a free and easy evacuation, during the passage of which he was not suffered to rise.

From this time he rapidly convalesced. The wound healed very kindly, by granulation, and there was formed at the ring a firm cicatrix, which, ever since, has been an effectual barrier against protrusions of the viscera. At the end of three weeks he left the house perfectly well, and has ever since remained so, although engaged in laborious occupations.

*Description of the Engravings.*

FIG. I, is designed to represent the front aspect of the tumour, which was oblong from above downward, and pretty uniformly convex before it was opened. The seat of the testis is marked (1) where an incision was made into the tumour after its removal. It was here also that the elastic swelling was felt, before the operation, and which proved to be the distended coats of the testis and the epididymis.

The cavity marked (2) is the triangular fossa, which was opened at the second stage of the operation, and which was found to contain a fluid. At the place marked (4) the side of the tumour is deficient. It was here that the director was thrust through into the deeper cavity, and the walls divided with the bistoury, inward. The anterior convexity of the tumour is marked (3).

It is to be borne in mind that this whole mass was involved in an external cyst, formed of dense cellular tissue fortified by layers of lymph. It was from this cyst that the water gushed in the first stage of the operation.

FIG. II. Exhibits the posterior aspect of the tumour. The testicle (1) is seen in the upper part, the cavity in which it is lodged being that of the tunica vaginalis greatly distended and thickened, so as to retain this form in the preparation. The part of the testis here seen is that which usually presents downward and forward. The epididymus is in front. The cavity marked (2) is that of the herniary sack. Its margin, below, shews the orifices of the vessels of the cord. They are passing beneath the tumour to ascend over its anterior face and reach the epididymis.

The drawings were accurately taken from the preparation which is in my possession. They are, however, on a reduced scale. The preparation measures, vertically, five inches—horizontally, three.

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ART. II.—*On the Influence of Heat and Cold in the production, and cure of disease.*

On this topic we by no means design to furnish a complete and systematic treatise, but rather to call the attention of the profession to certain points which we think have not been sufficiently adverted to, and especially the remediate agency of Heat and Cold in the treatment of disease. The disorganizing effects (burning and freezing) of these agents we shall not discuss, but confine our remarks to their less intense and more general influence on the nervous and vascular systems.

The agency of atmospherical vicissitudes, in the production of disease, has long been correctly estimated. In the etiology of almost every disease, and by almost every writer, they are accused as either the predisposing or exciting causes. But agents which exercise so powerful a controul over the living system in exciting disease must, when properly directed, be often equally efficacious in allaying it. Almost all the valuable remedies which we employ are powerful poisons; and when wisely directed, they are active and powerful in the cure of disease, in proportion as they are, at other times, violent and destructive. Such remedies supplant disease by creating a new morbid excitement, which is inconsistent with the former, more powerful than it, and at the same time under the controul of the powers of life.

From analogy, then, we should infer that heat and cold, so powerful in the production of disease, may often be trained to

act powerfully as remedies in obedience to the directing hand of the physician. But first—what is the *modus operandi* of vicissitudes of temperature in producing *disease*?

Heat is the most common and necessary of all the stimuli which operate on the vital qualities of the organs to produce the active phenomena of life. Every form of animal and vegetable life seems to be, indeed, the indirect offspring of solar heat. Where the beams of the sun reach the earth with unremitting intensity throughout the year, there its vital products are the most varied and abundant; but where its rays are absent for long periods, both animal and vegetable life are languid and brief. The best illustration of the influence of heat upon the *vis insita vitalis* is seen in the process of incubation. Here the vital principle is perfectly dormant, and would remain so until it perished, but for the influence of heat, which immediately rouses it to action.

That the living system may never be deprived of an agent so necessary to the vital functions, it is generated within the body itself: indeed it is vital heat alone which acts upon the living tissues and very rarely are they ever stimulated by artificial heat, or the heat of the sun and atmosphere. Has this external heat, then, no influence on the living system? It does exercise an important and constant one, but it is for the most part negative and indirect. The presence of external heat, merely prevents the escape of the vital heat and causes it to accumulate till, perhaps, the body becomes greatly oppressed with it. The living system has the power of resisting the entrance and accumulation of external heat in a surprising degree. So long as the vital functions are unimpaired, the general temperature of the body is never raised above ninety-eight degrees, although it be immersed in a medium many degrees hotter than itself. Even an egg has this power in some degree, and so also have plants. It is unnecessary to particularize the numerous experiments which have been made in relation to this subject.

When the body is placed in a cold medium, there is still as much heat generated as before, and probably more, but it passes

off so rapidly that its stimulating influence is insufficient, and action is diminished. The system is by no means so capable of resisting the declension of temperature below the vital standard, as it is its rise above it. It is true that the temperature of the deeply seated vital organs will remain uniform, because, before all the other organs are chilled, life will be extinct. The surface and members, however, become cold, and their vital powers dormant. This diminution of temperature is not confined to the surface. Sometimes a portion of a limb is deeply frozen, and yet, if the proper means be employed, its vitality is restored and its integrity preserved. Now, in such a case, the temperature of the part must slowly sink from  $98^{\circ}$  to  $32^{\circ}$ . It is certain, then, that the temperature of the living system is very often in some degree depressed below the standard of vital heat.

It appears, then, that the living system is far more capable of defending itself against excessive heat, than against excessive cold; for although some parts of the body very often sink much below the temperature of  $98^{\circ}$ , yet they never rise above it.—Hence, undoubtedly, it is, that cold is, far more frequently than excessive heat, the cause of disease. This is also in part to be accounted for by the fact that the temperature of the atmosphere is very rarely as high as that of the human body, but often ranges far below that point. Another reason too is found in the fact, that far the most sudden changes of atmospheric temperature are from heat to cold. The recurrence of warmth is always much more gradual, and is therefore less felt. The phrase “to take cold” is very common, but no one complains of having “taken heat.”

Heat being the natural stimulus of the body, and that without which the vital functions cannot be exercised, it seems very surprising that cold, or the mere absence of heat, should have been regarded by some as an excitant. Such a belief appears to have been suggested by the corroborant effect which sometimes results from the sudden abstraction of redundant heat from the body. Over-stimulation by heat must, of course, pro-

duce indirect exhaustion and the loss of tone, and, consequently, the diminution of such heat will remove a debilitating influence, and thus preserve the powers of the system; but in no sense whatever can cold be regarded as a stimulus. The nature of its influence will be better understood as we proceed.

As the tissues of the body have both vital and physical qualities, it is obvious that heat must operate upon them both vitally and chemically. The irritability of the system is chiefly resident in the nerves, and, consequently, the vital influence of this agent is manifest in the increase of nervous excitement. Any excitation of the nervous system will necessarily accelerate action in all the organs, and thus we have an increased development of vital phenomena. But if this excitement be long continued, or excessive, the organs become fatigued and no longer obedient to the influence of the nerves. We then have nervous excitement with general lassitude of the muscular and other tissues. This is the prevailing temperament of warm climates. The excitability of the nerves does not seem to be exhausted by the continued influence of heat, but is rather increased by it, because the nerves are not weakened by the physical effects of heat as we shall presently see the muscular tissue is. *Frigus nervis inimicum* says Hippocrates—meaning that cold diminishes the energy of the nerves, while heat increases it.

Hence it is that diseases, in which morbid nervous excitement plays a conspicuous part, are mostly those of warm climates, as, for instance, tetanus, chorea, hysteria, &c. &c. Hence also one reason why this class of diseases is more incident to females, whose bodies are more influenced by artificial heat than those of males.

But the chemical influence of heat is more remarkable in its action on the muscular system. We very well know that heat expands all bodies, and that its abstraction, or cold, causes all bodies to contract to an indefinite extent. The material of the living system is not exempt from this law. When, therefore, the body is operated upon by an increased degree of heat, all its tissues are expanded. Those which have a contractile property

(the muscles) will have their particles in some degree removed from each other, and hence their vital and cohesive attraction will be diminished. Necessarily, then, their denseness and strength of fibre will be diminished. It is probable, also, that this effect on the muscular system is, in part, owing to the influence of heat on the vital qualities of the muscles. Be this as it may, there is no doubt that excessive heat attenuates and weakens the muscular fibre, and diminishes the energy of all those organs which are essentially muscular.

Cold, on the other hand, condenses the contratile tissues, by bringing their particles into closer contact with each other, thus increasing the tone and rigidity of their fibres. The cohesive and vital attraction of the constituent parts is thus increased. This, however, is probably altogether a physical effect, for if heat be a stimulus, and this we cannot doubt, its diminution can certainly be nothing else than the diminution of a stimulus.

When, however, the system has been over-stimulated by heat, and has become physically relaxed by it, the abstraction of that excess of heat will exercise an invigorating influence, for two reasons. First, it will check the exhaustion of vital power which results from too much excitement, and thus obviate the indirect debility which will have been produced; and secondly, it will condense and give physical firmness to the contractile tissues. Indirectly, then, cold certainly is, in this way, a powerful corroborant. We shall presently discover also, that it often, by an indirect agency, exercises an invigorating influence on the vascular system.

The texture of the extreme vessels is probably essentially muscular. At least they possess contractility in a high degree. We expect, therefore, to find them influenced by vicissitudes of temperature in the same manner as are the muscular organs generally. Many of the extreme vessels are so situated as to feel sensibly the alternations of heat and cold. Those of the skin and the extremities are thus exposed, and, as they are but parts of the general system of the circulatory organs, all of which

must be dependant upon each other, the general function of the circulation must be much effected by the agents of which we are treating. When the body is subjected to the influence of a warm atmosphere, the fibre of the vessels will become relaxed; they will then yield to the *vis a tergo* of the heart, and their calibre will become increased. The quantity of blood, then contained in the capillary vessels, will become greater than ordinary. The action of the heart is, by the stimulus of heat, at the same time increased, so that, for a time, there occurs no stagnation of the circulation. But at length the blood, being in part withheld from the circulation by lingering in the dilated capillaries, and the heart not feeling its usual stimulus of distension and being wearied by the nervous excitement which heat produces, the balance of the circulation is disturbed. A great part of the blood becomes stagnant in the small vessels, and is withheld from the general circulation. Congestions, hemorrhages, varicose swellings, local inflammations, and watery effusions, are liable to occur.

But when, after the relaxing influence of heat on the surface and the extremities, the body is exposed to the impression of a cool atmosphere, the vessels of those regions are constricted. Their vital contractility, aided by the tone which they thus acquire, acts with vigor upon their contents, and they are sent back upon the heart, great vessels, and capillaries of the deep regions. The heart distended by the blood which is thus returned to it, is roused to more vigorous contractions, and thus the circulation is every where accelerated, and none of the blood is withheld from the circulation. Thus does cold, or the abstraction of heat, indirectly invigorate the living system.

But if the cold be intense or long continued, the vessels of the exposed parts become too much constricted; they become so rigidly contracted as not only to expel their contents, but to refuse receiving the blood that is sent to them from the heart, and especially because the whole system feeling the frigorific influence, the heart does not drive its blood to the surface with its accustomed energy. The result will then be that the sur-

face and extremities will become exanguious—the blood will accumulate in the great veins near the heart, and in the vascular tissues of the organs which are deeply seated and protected from the influence of external cold.

The skin is an extremely vascular tissue; no part of it can be pierced without the effusion of blood. The quantity of this fluid contained by the skin, at ordinary temperatures, is very great. Consequently, when it is made to recede from the surface, and, together with it, that of the extremities, it must be poured upon the deep-seated organs in such quantity as to engorge their vessels, interrupt their functions, create venous congestions, effusions, inflammations, morbid nutrition, &c. Whatever deep-seated organ may be at the time pre-disposed to disease, its vital powers feeble, and its vessels relaxed, will especially suffer from this unequal distribution of the fluids. Sometimes this organ is the brain, and then there result cerebral congestions, hemorrhages, effusions or inflammations. Sometimes the lungs are the centre of fluxion, and hence arise disorders of respiration, pleurisy, pneumonia, &c. &c. Occasionally the liver suffers in the same manner, and sometimes the mucous lining of the stomach and the intestinal canal, gastritis, dysentery, cholic or cholera morbus being produced. The effect, however, is undoubtedly in part owing to the impression made on the nerves, of which we shall speak in our next number.

It will be perceived, that we adopt, in relation to the succession of morbid causes and their effects, the opinions of Dr. Armstrong. The theory of Dr. Cullen is also similar, in many particulars, to the rationale which we have given. A spasm of the extreme vessels is certainly produced by cold, and then the train of phenomena is very similar to that described by Dr. Cullen. We do not, however, see the necessity of resorting to that vinculum of broken logic, a *vis medicatrix nature*. The train of causes and effects which results, seems to proceed in a necessary and very intelligible order.

It is probable that in the general circulation there is constantly taking place a kind of vibration between the heart, great vessels

and viscera on the one hand, and the capillaries on the other. Even slight impressions of cold on the surface cause the blood for a time to recede, and to fall upon the heart and viscera. The heart then re-acts, being stimulated by distension, and by its energetic effort drives the blood again into the capillaries and rouses them to the exercise of their functions. So, also, heat, when applied to the surface, causes all the vessels of the skin to become dilated and full; thus deriving blood from the great vessels, and relieving them of what may have been an oppressive load, if the surface has been for a long time constricted.

Alternations of heat and cold, then, and the vicissitudes of excitement which they produce, are by no means injurious to the vital functions, but highly salutary, the heart and the capillaries being alternately relieved of the burden of their functions and again excited by the rush of blood. There is undoubtedly a sort of tide, or flux and re-flux of this kind, perpetually going on between the centre and the surface. In the morning, when the atmosphere is cool, and the body is uninfluenced by the various causes which create excitement, the surface is pale and the vessels contracted. The pulse, too, is smaller than at other periods. During the day, vital heat is increased by exercise; the surface of the body, also, is exposed to a warmer atmosphere. Then the capillary vessels become dilated and engorged, and the blood is in part withdrawn from the heart and great vessels, and accumulated in the skin and extremities. It was undoubtedly this flux and reflux of the blood between the surface and the centre, which induced the ancients to believe, that the only circulation of the blood consisted in its flowing from the heart to the surface by day, and returning at night.

The changes of temperature, which occur more or less in all climates, are, in this way, when not extreme, exceedingly salutary to the vital functions, and not, as is the vulgar belief, generally injurious. The impression of a cool atmosphere on the surface, when not too long continued, is precisely that of a cold bath, and like it produces a re-action on the part of the heart.

which, indirectly, even accelerates the circulation in the capillaries on the surface. When the body is confined to a temperature perfectly uniform, the circulation is observed to become sluggish, especially in the capillaries. There are then wanting those periods of excitement which rouse the energies of the organs, and, by opportune exercise, increase their powers.

*(To be continued.)*

## Adversaria.

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*ART. I.—Description of an instrument for seizing wounded arteries, in the application of the ligature, by the Editor.*



We are often compelled to apply a ligature to a bleeding artery without adequate assistance, and almost every surgeon has undoubtedly experienced the want of an instrument which may, of itself, retain firmly its hold upon the artery, when we have once seized it, until the ligature can be applied. Even when we are assisted, unless the assistant has some tact in the application of the ligature, we could, with such an instrument, apply the thread to small arteries with more precision without aid than with it.

Surgeons, aware of this, have employed a spring-forceps with a slide attached to the blades, in such a manner that when it is pushed up, towards the points, it will press together the blades and keep them thus fixed. This instrument is generally found in our amputating cases. There is this objection to it, however; in order to make it hold the vessel, the surgeon must, when he has seized the artery, use the other hand to push up the slide. In bringing the other hand to his aid, he almost always disturbs that which holds the instrument; and when he pushes the slide, he is liable to pull the forceps so forcibly as to disengage it.

The instrument which we use is so contrived as to obviate those difficulties. To one of the blades a spring is attached, at

right angles. This has a catch upon one side, and it passes through a hole in the opposite blade, to such an extent that, when the blades are pressed firmly, the catch will slip over the edge of the hole and confine the blades in that position. They may, however, have their points brought in contact without pressing the spring through so far as to catch, so that the operator may first ascertain whether he has seized the artery, and then, without moving the fingers in the least, press the blades more firmly, and it is instantly fixed. He may then suffer the forceps to hang by the artery which, by the weight of the instrument, will be dragged out sufficiently to admit of the convenient application of the thread.

This instrument is also peculiar in another respect. Every one who has often used such an instrument has, no doubt, been frequently annoyed by the insinuation of portions of cellular tissue between the blades, in such a manner as to press the points apart at the instant that he wishes to secure the artery. To obviate this I have had a triangular opening made in the extremities of the blades, into which any substance will pass which gets engaged in the instrument. The margins of the openings, toward the points, are made rough.

Similar instruments may perhaps have been heretofore contrived—but the one here represented is certainly different from any now in common use.

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ART. II.—*Employment of the gum-elastic catheter, or conductor, after the operation of lithotomy.*

Having recently made trial of the above instrument, after performing the operation of lithotomy in the Baltimore Infirmary, we are induced to give a decided opinion against its employment. The case in which it was used, it is true, did well; and the patient has perfectly recovered, but we are satisfied that this would probably would not have been the case had w

persevered in the use of the instrument, as recommended by some of the most eminent surgeons of the present day.

After the patient had been placed in a proper attitude in bed, a large elastic catheter was introduced into the bladder through the wound, for the purpose of draining off the water and preventing its infiltration into the wounded tissues. Scarcely had it been placed there, the point being conveyed, as near as we could judge, just within the cut in the bladder, before the patient began to complain grievously of the annoyance which it gave him. It seemed to create pain by its pressure throughout the whole wound, and also, to provoke the bladder to spasmodic contractions. We adjusted it in a different attitude, but still with no better result. The patient earnestly intreated that we should remove it. We the more readily complied, because it was found that by no means all the urine was conveyed off through the instrument. On its removal the irritation abated.

It is not merely the result of this experiment which induces us to reject the expedient. We are influenced also by the following considerations.

1st. The bladder, we know, is always endeavouring, and often convulsively, to throw off any hard, irritating, foreign substance which may be lodged in it; hence the occasional passage of calculi, and hence the periodical paroxysms of pain in stone. In some instances, when the incision for the extraction of stone has been made, and a stone, or a part of a stone has been left in the bladder, this organ has, by its contractions, in a few hours, thrown off the foreign body. So uniformly and successfully does it make these expulsive efforts, that some of the French surgeons have practised the performance of the operation *en deux temps*, in order, in the extraction of a large stone, or the fragment of one, to avail themselves of these efforts. Certainly then, if the point of a catheter be thrust into the bladder, this organ will be provoked to expel it, and will become irritated by its own efforts to do so. If it does not succeed in pushing it out, this irritation will continue, and if it does, then will the urine no longer flow through the catheter, but this instrument

will, in some degree, obstruct the external opening and render infiltration more certain to take place.

2d. Even if the instrument could be kept in the bladder, certainly not all the urine could flow through it, and if even but one fourth passed along the wound, keeping it always wet with it, the effect would be the same as if the whole passed in that manner—perhaps worse, indeed, because it would be confined in its passage, and forced into the cellular tissue.

3d. There is often discharged from the bladder, after such an operation, a great quantity of sabulous matter which was adherent to the mucous lining of the organ. It is often involved in a kind of slough which the bladder throws off at that time, probably consisting of lymph and mucous, as we have seen in two instances. This cannot pass through the catheter, and if it be confined by the closure of the wound around the instrument, it may give rise to much irritation, or it may become the nucleus of a new calculus.

4th. The external end of the instrument is liable to be disturbed in its place by the dressings, or bed-clothing, so as to occasion mechanical injury within the wound.

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### ART. III.—*Anatomical Anomaly.*

There is now in the Anatomical collection of the University of Maryland a preparation of femoral hernia, dissected two years since by the editor, in which there is a singular arrangement of the arteries concerned in the relative anatomy of hernia. In the place of the epigastric artery there is nothing but a very small ramulus, totally inadequate to the offices of that organ. The place of the artery is supplied by what is usually the obturator. This artery, in the preparation, arises from the internal iliac, near its origin—runs down across the pelvis, toward the upper part of the thyroid hole—sends a branch to this, and is then reflected directly upward, along the walls of the abdomen, on the inside of the crural ring. The ring, therefore, has an artery on each side of it.

## Analytical Reviews.

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*A Treatise on the Scrofulous Disease, by C. G. Hufeland, Physician to the King of Prussia, &c. translated from the French of M. Bousquet, by Charles D. Meigs, M. D. member of the Am. Phil. Soc. Phila. 1829.*

“When a disease spreads in so frightful a manner as scrofula, —exercises so fatal an influence on the constitution, and is so rebellious against all the resources of art, every philanthropic physician ought doubtless to make it the special object of his study, and to contribute his share of effort to that of his brethren against so terrible an enemy.”

The above just remark, from the preface of our author, will vindicate our introducing into these pages a topic which some might regard as a hackneyed theme. Of any one who may be disposed to pronounce it such, I would ask, what is the nature of scrofula?—what are its immediate causes, and what are its remedies? If his reply is complete and satisfactory, then indeed may his investigation cease, and he will have done more for medicine than has ever any one individual.

The truth is that, in relation to this subject, our opinions are unsettled, our pathology wants precision, and our practice is diffuse and uncertain. We do not promise to supply, in any considerable degree, these deficiencies, either from the text of our author or from our own commentaries. Something we may perhaps offer worthy of recollection, but we would not regret our attempt, should we merely awaken attention, keep alive a spirit of enquiry, and thus indirectly aid in approximating the truth.

The appellation of *king's-evil* as applied to this disease is certainly a very just one, if used in a sense somewhat different from that in which it was first employed. It is indeed one of the suite of royalty—the offspring of royal luxury, and of royal oppression. It attaches itself to the two extremes of man's condition—it is the inmate of the palace and of the hovel. It furnishes a community of suffering in which these extremes meet.

“Pallida mors æquo pulsat pede  
Pauperum tabernas, regumque turres.”

The extremes of luxury and indigence are, in our own country, becoming every day more strongly contrasted—every day, therefore, scrofula is, to us, becoming a disease of more formidable aspect and more frequent occurrence.

The work which we are about to examine was published in Germany some years ago, and on that occasion the prize of the Imperial Society was awarded to it. It has ever since been regarded, on the continent of Europe, as a work of standard merit. It has been neatly, and we doubt not correctly translated.

SEC. I. In this division the author treats of the proximate cause or nature of scrofula, premising, however, some remarks on the functions of the absorbents and on the remote causes of the disease. He states that the absorbents, consisting of lymphatics and lacteals, have for their office to collect and absorb all heterogeneous particles for the purpose of elimination—to free the secretory organs of any excess of their secreted fluid—to take up and translate morbid matter from one place to another—to serve as a highway, open to all those principles which are proceeding to enter into the great circulation—to deprive the organic molecules, which pass through them to be introduced into the body, of their heterogeneous qualities and to confer upon them the character of animal matter. Consequently the absorbents powerfully influence sanguification, nutrition, secretion, the equilibrium of the circulation, and the development of forms.

The contents of the absorbents are chyle, subtle principles taken from the atmosphere, and the refuse matters of the system. These, says our author, should be taken into account in

order justly to appreciate the diseases to which the absorbents are subject. He is so much of a humoralist as to believe, what nothing but prejudice can deny, that the solids and the circulating fluids reciprocally influence each other in health and in disease.

Among the predisposing causes of the disease Hufeland enumerates, 1st, hereditary tendency; 2d, sex and age, the disease being more common with females and children; 3d, weakness of parent, from age, disease, or venereal indulgence; 4th syphilis of parents; 5th, unwholesome aliments, under which head he speaks emphatically of artificial lactation as extremely injurious. Human milk he says is highly vital—that its vitality is lost when it does not pass directly from the breast of the mother to the stomach of the child, without exposure to the air and to spontaneous changes. The child, by sucking, also blends saliva with the milk, and it always receives it of a uniform temperature.— Among injurious aliments are all farinaceous preparations that have not been fermented or well cooked, food that is watery, and too great quantities of food. 6th, Bad air—cold, damp, or foul; 7th, every thing which weakens the digestive organs; 8th, acidities in the primæ viæ; 9th, worms; 10th, the abuse of opium in childhood; 11th, want of exercise; 12th, want of cleanliness; 13th, abuse of heat; 14th, precocious studies; 15th, too early exercise of the sexual organs; 16th, mournful affections of the soul; 17th, abuse of cold.

The exciting causes he believes to be—1st, rapid growth of the body. The development of the organs, at certain periods of life, takes place with extreme rapidity, which, by over-exercising, exhausts the lymphatic system—hence the occurrence of *growing kernels* and of those tumors which often appear at the age of puberty. 2d, The vicissitudes of the reasons. 3d, Mechanical irritations. 4th, Diseases of irritation—such as those of the digestive organs—those of the skin, any affection, indeed, which may disturb the equilibrium of excitement.

In regard to the proximate cause of the disease our author remarks that it consists in a *profound atony, accompanied with*

*a specific irritation of the lymphatic system; and in a peculiar alteration of the lymph.* The scrofulous taint has its primitive seat in the solids and not in the fluids. Irritation and weakness constitute its compound character. But the proximate cause exists secondarily in the fluids as well as in the solids. The fluids are the natural stimuli of a great many organs, and of the vessels which convey them; many of them are blended with our aliments and resorbed into the system. If, then, the solids, designed for this purpose, cease to form perfect fluids, and cease to purify those which circulate, they must necessarily become crude—irritate the vessels which convey them—morbidly influence the brain, the heart, the lungs, and the stomach—and furnish insufficient materials for healthy secretion. The fluids also have vitality, and they determine the tone and cohesion of the solids. If the fluids be too abundant, then the solids do not act upon them with advantage. Hufeland believes, too, that the lymph may be too thick or too thin, and that at times it is too irritating, being overcharged with alkali or acid.

The lymph is brought into this morbid state by the injurious qualities of aliment, air, &c.; also by a morbid state of the digestive powers, of the cutaneous and pulmonary functions, or by a morbid condition of the secreting organs, or of the nutrient vessels.

The lymph is by, Hufeland, stated to be changed, in scrofula, and the impurity which modifies it is termed the scrofulous virus, or acrimony. All the fluids stimulate the vessels which contain and circulate them. When, as stimuli, their character becomes exalted, they irritate, and then they are said to be *acrimonious*. M. H. does not mean that there is a specific virus circulating in the blood and giving rise to scrofula. The blood may thus become acrimonious by any or all of the causes which we have just enumerated.

This scrofulous acrimony not only irritates the lymphatics, but the nerves, and hence the convulsions of scrofulous patients,—it corrodes bones, and hence caries. When charged with it, the lymph becomes inspissated and less nutritive—acid, and

finally putrescent. Under these circumstances scrofula may become contagious.

We must here take the liberty to demur to some of the propositions of our author, and to dissent from, perhaps the fashionable and, certainly, the ancient doctrine on this subject. If the term scrofula be received in its most comprehensive sense, meaning that state of the system which is sometimes marked by swellings of the glands, sometimes by caries or necrosis of the bones, sometimes by diseases of the cartilages and ligaments, sometimes by chronic inflammation of the eyes, then I say that the lymphatic system has been too much considered in relation to these affections.

Those states of the system which are termed scrofulous, are often unaccompanied with any symptom which indicates a particular derangement of the lymphatics. There are often no swellings of the glands, nor is there any thing in the constitution of the fluids indicating such a fact. For instance, in disease of the knee joint, termed scrofulous, such symptoms are often absent. There is no evidence whatever, that the lymphatics circulate an acrimonious fluid. When Hufeland asserts that in such a case the cartilages, ligaments, and bones are corroded by such a principle, he is altogether hypothetical. Nothing of the kind can be detected either in the blood or the lymph, and, as to the effect, it may be with more propriety ascribed to other causes.

We would be understood to utter no dogmas—let our opinions obtain only so far as they are sustained by facts—but, to us, it has ever appeared far more accordant with what we know of the healthy functions of the human body, to ascribe these morbid phenomina, commonly termed scrofulous, to a disordered state of the general nutrient system—those small vessels which are concerned in organizing the tissues—in effecting their growth and renewal, and consequently in preserving the integrity of every organ. The function of nutrition is the consummation of a whole series of functions—digestion, sanguification, circulation and respiration. What can be more important,

then, in relation to the health and vigor of the whole system? The nutrient system may become disordered in various ways. The fault may be primarily in the stomach, and then, the function of digestion becoming impaired, crude materials will be furnished for the subsequent steps of assimilation. The same may result from disorder in the liver, the lacteal absorbents, or the lungs. Unwholesome aliments, and the excesses of the table will also produce the same effect.

Morbid nutrition may also arise from any of the causes which disturb the functions of the heart and arteries, and destroy the equilibrium of the circulation. So also it may spring from those which operate more directly to exhaust the powers of the system generally, through the medium of the nerves.

When acute disorders assail the system, nutrition, for a time, altogether ceases, and there are, therefore, none of the results of morbid nutrition. But, in chronic affections, nutrition still continues to be performed, although the organs are enfeebled and the fluids upon which they act are crude and unfit. It must happen, then, that the tissues will be imperfectly organized—both their physical and vital qualities will be insufficient. The muscles will become flabby and insensible—the bones will become soft and yielding, or being but little vitalised, will yield to chemical laws and become necrosed or carious. The ligaments will loose their strength and flexibility—the cartilages their elasticity, and perhaps become carious.

These are the direct results which we should anticipate from a disordered exercise of the function of nutrition, and they are those which are commonly regarded as characterising the disease which we term scrofula.

But let us pursue the train of morbid phenomena a little further. Whenever the tissues are imperfectly organized, or composed of ill-digested materials, the particles which compose them must soon become unfit for the purposes of life, and then must be absorbed—still retaining their crude character, they enter the absorbents and necessarily inflict irritation upon these delicate organs, and upon the glands with which they are

connected. Hence result other phenomena which are regarded as so important in determining the character of this disease. But certainly this derangement of the lymphatic system is nothing more than might rationally be anticipated from long continued disorder of the function of nutrition.

Nature seems to find more difficulty in organizing some tissues than others. Those whose vital qualities are obscure, which are but little vascular, and have but few nerves, are those which are last perfected in the animal œconomy—which resist the encroachments of disease with the least success, and which with most difficulty repair the effects of injuries.

Now we should expect to find that these very tissues would be those which would be first to suffer from the effects of deranged nutrition. Hence, in scrofula, the very frequent occurrence of disease in the bones, ligaments, cartilages, &c.

M. Hufeland next proceeds to detail the symptoms which mark the external character of this disease. In regard to the scrofulous diathesis, or disposition which precedes the development of local symptoms, he states what by no means accords with that which we have advanced above—what, indeed, we cannot regard as a correct or safe principle. He says that, in this state of the system, the forces of the lymphatics may be regarded as *alone affected*. Now, we believe and strenuously maintain that this diathesis, or predisposition, is nothing more than the deranged state of the assimilating functions which is about to terminate in the train of symptoms constituting scrofula.

Whoever regards the forces of the lymphatics as alone affected in such a case, will certainly not be apt to adopt the practice which, under such circumstances, has always been found the most efficacious, and which consists of remedies addressed to the digestive organs.

The external traits which mark this habit or predisposition are, a short, thick neck; jaws strong and broad; head large; hair light; face slightly bloated; skin delicate, transparent and white; eyes blue and pupils large; upper lips thick; nose swelled, red and shining; flesh flabby; belly tumid.

One of the most remarkable effects of the scrofulous disease is, to retard the developement of certain organs, and hasten that of others. The growth of the teeth, bones, and muscles is slow and difficult. The brain and nerves, and the genital organs, on the other hand, acquire an early maturity; hence scrofulous children are observed to be precocious, fond of intellectual labour, and irresistibly inclined to venereal enjoyments.

Among the ailments connected with the diathesis of scrofula are—frequent bleedings at the nose—frequent colds—catarrhal coughs and impeded respiration—excoriations in the groins and arm-pits—small, scabby pimples of various forms—cedema in various parts—pains along the course of the absorbents—whitish discharges from the vagina.

The stomach is particularly disordered from the beginning. There prevail acidities—stools unnatural in colour, consistence, and odour—appetite irregular, wanting, or morbid—mucus redundant—worms—flatulency, spasms, and cholics.

The scrofulous fever, if the disease progress, soon makes its appearance, commonly in children under two years. It is very irregular in its type and duration—temperature very little augmented, with an evident chill and a slight exacerbation,—stomach and bowels much disordered—wheezing respiration, and pitting cough.

M. Hufeland asserts that this scrofulous fever is often mistaken for gastric fever, fever of dentition, mesenteric fever, &c. &c. He seems to regard it as arising from the scrofulous acrimony already fully formed, and about to display the more characteristic symptoms of the disease. But to us it appears that these are the more immediate effects produced by a morbid nutrition, and that the degeneration of the tissues, constituting scrofula, has not yet taken place in its fullest extent.

When scrofula is fully formed, the following are its more remarkable symptoms: 1st. Swellings of the lymphatic glands, and especially those of the neck. At first they are moveable, but at length become fixed. Sometimes they assume an enormous size, having been known to weigh ten pounds. These tumours are

divided into internal and external. The external are those which affect the superficial lymphatic glands. The internal are those which affect the glands of the mesentry, the liver, lungs, &c. &c. 2d. Cutaneous eruptions, particularly about the head. 3d. Inflammations in organs which contain many glands. The scrofulous ophthalmia which is seated in the meibomian glands is one of these. 4th. Mucous discharges. 5th. Swelling of the belly. 6th. Scrofulous ulcers. 7th. Lymphatic swellings. 8th. Goitre.

As the disease becomes more virulent and general, that which is termed the period of disorganization comes on. This is characterized 1st, by mesenteric atrophy. 2d. White swellings of the joints. 3d. Spontaneous luxation. 4th. Scrofulous dropsies. 5th. Tubercular consumption. 6th. Changes in the bones. 7th. Scrofulous cancer. "It is not a rare thing," says Hufeland, "to see a scrofulous engorgement pass into the state of scirrhus and even of cancer." 8th. Abdominal consumption. 9th. Rachitism. "The scrofulous taint," says our author, "not unfrequently occupies the bones exclusivsly; we find neither glandular tumours, nor tubercles, nor any of the symptoms that characterize an affection of the lymphatic system; and yet" he says "it cannot be doubted that rachitism derives its origin from the scrofulous taint." What can more strongly corroborate the remarks which we have hazarded in regard to the nature of this disease than this admission of our author? 10th. Nervous affections depending on scrofula. 11th. Cretinism.

The analysis of the remainder of this valuable work, on the treatment of scrofula, we shall reserve for our second number.

## Abstract of Foreign Medicine.

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### PRACTICE OF PHYSICK.

*Hydrocephalus Acutus*.—M. D. Charpentier, D. M. P. of Paris, is the author of a recent volume of 350 pages, on Acute Hydrocephalus. The object of the writer is to show that, in relation to this disease, the brain itself has been too little regarded, as the primary source of morbid derangement. The fashionable doctrine, as we know, has been of late, that most of these affections arise from gastric irritation, or gastro-enteritis; but the above-named author maintains that the brain is often the organ principally affected, even when, after death, it presents no trace of lesion, the fatal result being produced by irritation in the organ, before inflammation can be developed. We believe that, in this respect, he is certainly correct. Physicians have been accustomed to regard nearly all the diseases of the brain as sympathetic, because the morbid changes which may simultaneously or subsequently take place, in organs that are more gross, are more readily discerned, whereas in the brain a fatal derangement may take place, which, from the delicate structure of that organ, cannot be discerned. In health the brain certainly exercises an influence upon the stomach, as well as the stomach upon the brain. In disease we should expect that they would bear the same relation to each other, and that each would occasionally be the seat of primary derangement.

M. Charpentier informs us that, on post-mortem examination, the surface of the brain very often presents no appearance of disease; but sometimes there is a flattening of the convolutions produced by pressure upon the cranium, by fluids extravasated in the cells of the arachnoid, and by the inflammatory engorgement. This is often seen without any lesion of the membranes. There is often also a softening of the surface of the brain, marked by a dark reddish hue and with points of blood, where the brain adheres to the membranes. The medullary substance is often engorged with blood, which flows from the vessels when cut, and also appears in small points. The brain is also often changed in its consistence, as well as colour, it being sometimes rendered softer and sometimes harder, according to the intensity of the inflammation, or owing to unknown circumstances.

There is often a softening discovered, in the interior of the brain, of the corpus collosum, fornix, or septum—of a reddish, grey or yellowish hue, depending upon a mixture of blood or pus with the white or grey substance. But sometimes the softening (*ramollissement*) is without change of colour. It is always the result of inflammation. Sometimes, in this disease, the volume of the brain is increased. M. C. also enumerates the morbid changes which occur in the membranes. They are those often delineated by other writers.

The principal part of the volume is devoted to the vindication of the claims of the brain to consideration in the primary production of this disease. The author believes that too much regard is paid to the stomach and bowels, as its source, and to inflammation of the arachnoid membrane as its immediate cause.

M. C. has introduced no new remedy, in the treatment of this disease, but claims the merit of originality in the selection and judicious employment of the most energetic means, and in the rejection of many articles heretofore employed, but which are useless or injurious. He asserts, with great confidence, that this disease, so fatal in the opinion of most physicians, is often curable. He condemns emphatically, and without reserve, every form of mercury. This, however, we regard as a characteristic error in the practice of the French. No remediate means appear to us to be more important than mercurial purges, so associated with other remedies as that their cathartic effect shall be certain. We concur, however, in his condemnation of such an employment of it, as shall create the mercurial excitement.

In blood-letting he places the same confidence as do other writers on this subject, preferring generally to abstract it by leeches over the region of the stomach. But the distinguishing trait of his practice is the very energetic and early employment of revulsive measures. It is not, he says, by one or two blisters that this indication is to be answered, but by an uninterrupted succession of these topical irritants, the energy of which must correspond to the violence of the disease. They should be first applied to parts remote from the seat of the disease, gradually ascending, in their application, toward the head—first, two to the legs; then, two to the thighs; next, two to the arms and lastly, one to the neck. In mild, incipient, or doubtful cases, he would first employ semicupia, rendered stimulating by mustard or salt—cataplasms of mustard—frictions with irritating substances, &c.

We would enter our *caveat*, (together with that of M. Boisseau, who reviews the work in the *Journal Universel*,) against the employment of so severe vesication in any but such cases as are attended with extreme torpidity of the surface and extremities. We are persuaded, however, that, when applied to the extremities, they are more effectual as revulsants, than when applied near the head.\*

*Tetanus*.—Lisfranc has recently reported a case of this formidable malady, successfully treated by copious bleeding, and the use of opium. This occurred in an individual of twenty-five or thirty years, and appeared to have been produced by great muscular exertion. There were pains in the spine, trismus, emprosthotonos. The treatment occupied nineteen days, and the disease did not in the least yield till the ninth. The patient was bled eight times from the arm—four of which were on the first and second days after his admission. The quantity taken was about a pound at each bleeding. Near eight hundred leeches were applied to the region of the spine. Two or three warm baths were employed. Every day, morning and evening, an injection was administered, containing, at first, twenty-five drops of the tincture of opium, but this was gradually increased to one hundred and five. Very little prostration of strength resulted from the copious depletion.†

*Cerebral and Spinal irritation*.—On this subject Dr. Darwall of Birmingham has recently published judicious remarks, in which he maintains that the brain and spinal marrow are too often regarded as secondarily affected when perhaps they are the primary source of mischief. This has probably arisen from the fact that, the extreme delicacy of structure in their organs, the obscurity of their functions, and insidiousness of their derangements, baffle our senses, while the disorders of structure and function are far more obvious in other tissues. But organic disease is preceded by functional, and functional disease, in its propagation from organ to organ, follows the order of the vital influences. Now, the brain is often the source of vital impulses, though it is re-acted upon by all the organs which it influences. The brain and spinal marrow, then, must often be the source of disease. There morbid influences often produce, not only functional, but organic disease, in remote organs.

\**Journal Universel*.

†*Journal de progres*.

Dr. D. thinks then, that practitioners, in incipient diseases of organs which, particularly, reciprocate influences with the brain, should always have an eye to the latter organ and its appendages. Dyspepsia disturbs the brain, and disturbance of the brain, from mental or other causes, produces dyspepsia. The same remark is applicable to the diseases of other organs. These affections should be treated by first obviating the causes of cerebral disturbance, and then applying counter-irritants opposite to the roots of the nerves which supply the organs, in which the morbid manifestations occur. To these organs the usual remedies are to be at the same time addressed.

*Remediate effects of Iodine.*—We learn from Johnson's journal, that Dr. Baron of Gloucester has recently published certain valuable notes on the uses of Iodine. This gentleman has treated abdominal dropsy with success, even after paracentesis, by the long continued inunction of the unguent of Iodine. Rhubarb, taraxacum, blue pill, squills and nitre were conjointly employed. In one case an enlargement of the liver was greatly reduced. The Dr. has also dispelled enlargements of the mesenteric glands, chiefly as he thinks, by the agency of this article. He is sanguine, too, that tubercles of the lungs, which resisted other remedies, have been dispersed by the conjoint use of Iodine. He has, also, used it with success in the treatment of abdominal tumours.

Dr. Johnson remarks that, "this most powerful of all "absorbents" or stimulants of the absorbents, will probably come into much more extended use than at present—and for many other diseases than those to which it seems now applicable. We are informed, by a respectable practitioner, that he finds the tincture of Iodine a most powerful expectorant, in those cases where expectoration is desirable, as in pneumonia, asthma, &c. This hint may be worth attending to."

*Remarks on diseases counterfeiting inflammations of internal organs.*—In the October number of Johnson's Journal, Mr. George Newstead states that "a number of cases have occurred in his practice during the last three or four years which, with all the external characters of active inflammation, have not been relieved by bleeding, and in fact could not bear it, to any great extent." They generally assumed the form of pleuritis, ushered in by chills, pain in the back, and vomiting—tongue typhoid—pulse somewhat accelerated—urine scanty, with sediment. Sometimes it terminated in three or four days with copious sweating—sometimes in ten, with bloody expectoration. Syncope was quickly produced by bleeding. Some of the cases simulated peritonitis. Very generally there was soreness in many parts of the body. The thighs, arms, &c. were tender to the touch, as in rheumatism. This symptom and the scantiness of urine the writer has seized upon as the diagnostic traits of the disease. The state of the bowels varied—frequently diarrhea came on, with green stools, or a discharge of bloody mucus, but this may have been the effect of calomel. Three cases were fatal, and in two of them bleeding was freely practised. Mr. N. states that, in the treatment, his reliance was chiefly upon opium and calomel, or mercurial frictions.

Dr. Johnson states that "there has been some peculiar constitution of the air, or rather of the earth, during the last four years, which has induced a host of anomalous diseases, imitating inflammatory affections, and leading to most injurious practice."

*Duodeno-hepatitis caused by the effluvia of dead bodies.*—We translate and condense, from the July number of Broussais' *Annales de Medecine Physiologique*, the following notice, by M. Duplan, of the above-named affection. The body of a female, who had died very suddenly, and in whom putrefaction had occurred very rapidly, was opened by M. D<sup>\*\*\*</sup>. The brain and the organs contained in the thorax were sound. The stomach was very much distended with gas—its lining membrane loaded with mucus, and covered with inflamed

points—black near the pylorus. The mucous membrane of the duodenum was gangrenous. The mucous and serous coats were also affected with a high degree of inflammation. The liver was enlarged, soft, and traversed by vessels distended with black blood. The gall-bladder was half full of dark, green, viscid bile.

M. Duplan was perfectly well when he performed the dissection. The next day (July 27) he became unwell, with loss of appetite, listlessness, and drowsiness. He attended to business, however, as usual, ate sparingly, went to bed at 6 o'clock in the evening and slept till 2, when he was roused with a severe cholic, accompanied with borborygmi, and an urgent desire to go to stool. Before 6 in the evening he had had 150 evacuations, all very copious (cent cinquante, toutes fortes copieuses) and consisting of yellow bile—thick and full of froth. On the 29th he had 18 evacuations, and without griping—on the 30th he had only 5. By these evacuations he was rendered so feeble as to be unable to speak.

The treatment (here comes the mouse) consisted of *lint-seed poultices to the belly—barley water, and low diet*. Wretched imbecility! Had this case of cholera—instead of being subjected to this wishy-washy practice—been treated liberally with calomel and opium—had sinapisms been applied to the abdomen, the feet and legs been plunged in warm water impregnated with mustard, and measures been taken to divert the circulation to the surface generally, by heat and other revulsives, this patient would, in all probability, have been relieved in 2 hours.

Broussais tells us, in relation to this case, that all septic, or putrefactive poisons, in whatever manner they may enter the system, tend to irritate the stomach and intestines, and to provoke copious evacuations of bile and mucus. Now, in this instance, the exhalations from the cadaver operated on the system through the lungs, to produce these effects—or, perhaps, the extreme heat of the weather may have been the more important cause. We should say that the latter was the predisposing cause, the former the exciting one. M. B. true to his principles, also declares that, had this case, instead of being treated *thus judiciously*, been treated with vomits, antiseptics and irritants, it would have resulted in formidable typhus. This, however, would *not* have been the practice of those whom he so courteously styles empirics.

*Iodine in the treatment of Rheumatism.*—From Broussais' *Annales*, we also learn, that Dr. Maury, of the Hospital Saint Louis, has employed Iodine with success in two cases of rheumatism which had resisted the means usually employed in such cases. The article appeared to exercise a prompt influence in dispelling the swellings of the joints.

*Apoplexy.*—The observations of M. Flourens go to show that there are two varieties of apoplexy—the superficial, affecting the surface of the brain, and the profound, affecting its interior. Each of these, he says, is characterized by distinct symptoms. In the profound apoplexy there is a complete abolition of muscular power; but in the superficial there is merely a want of energy, and irregularity of motion. The deep apoplexy is always accompanied with the superficial, but the latter is often unaccompanied with the former, of which it appears to be merely the first degree. The object of the physician, then, should always be to prevent the superficial or incomplete from becoming the complete.

In the deep apoplexy M. Flourens has always found that the extravasation took place in a cavity within the organ. In the superficial, on the contrary, the surface of the organ was alone affected, presenting a reddish hue, and a great number of red points and lines scattered over almost the whole surface.

[*Bulletin des Sciences Medicales.*

*Ice to the epigastrium in the painful paroxysm arising from gall-stones in the ducts of the liver.*—M. Bricheteau, M. D. publishes several cases in which the application of ice to the epigastrium appeared to exercise a prompt and energetic influence in alleviating the distressing symptoms of this severe malady. Dr. Johnson, from whom we receive the fact, remarks, that this form of biliary obstruction is by no means so common as is imagined, paroxysms of extreme pain in that region being often mistaken for it. He judiciously states that we have strong reason to presume, that spasmodic affections of the stomach itself—of the diaphragm—and perhaps of other contiguous parts, where muscular fibres exist, are capable of inducing all the phenomena usually seen in the attacks under consideration, excepting jaundice. The more important part of the treatment, he says, is the prevention—for, during the paroxysms, we can do little more than exhibit anodynes. The prevention may always be effected by plain and abstemious diet—by regular exercise, and by bitter aperients, that merely act once in the 24 hours. By these means he has, in numerous cases, removed the tendency to these periodical attacks, after the habit has been long established, and the general health very much deteriorated.

*Curious case of masked ague.*—A young female, subject to general malaise, for some years, was at last attacked with an intermittent which was remarkable in the length of its periods, occurring, at first, once in three weeks—then once in two, but finally once in eight days. The precursory phenomenon was a swelling of the hand, lasting two days, followed by colic, head-ache and fever. The paroxysm then occurred with a violent rigor, and went through with all its usual stages. It was cured with sulphate of quinine.

[*Bibliothèque Médicale.*]

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Immediately previous to the commencement of the present course of lectures in the University of Maryland, it was publicly announced that Dr. John D. Wells was appointed to discharge the duties of the Anatomical chair, for the winter. We have heard, with extreme pleasure, the warm and unreserved expressions of satisfaction uttered on every side, in relation to this appointment. The candidates of the present year, at a recent meeting, have *unanimously* expressed the high estimation in which they hold the talents, learning, and eloquence of Professor W. and have declared their earnest desire that he may become permanently connected with their Alma Mater. The Medical Faculty of the Institution have promptly, and with perfect *unanimity*, resolved to recommend him to the Board of Trustees, as a gentleman eminently qualified to occupy this important station. We congratulate the friends of the Institution on the probable acquisition of an individual, who brings to it uncommon and universally acknowledged talent and worth.

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**Original Essays.**

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**ART. I.—***Hints on the practicability of extirpating the Parotid Gland, by N. R. Smith, M. D.*

Learned and skilful surgeons are still divided in opinion, in relation to the possibility of entirely removing the Parotid Gland, with safety to the patient. Some, indeed, on dissecting this gland, are so thoroughly convinced of the utter impracticability of removing the organ, as absolutely to reject the respectable testimony which avers that such an operation has been accomplished. These gentlemen, in their logic, are of the school of Hume. The thing seems to them so impossible, that it is easier for them to believe that Surgeons report falsely, or are deceived in regard to what they have accomplished, than that the parotid has been extirpated. Indeed, when we study the relations of this organ, when we see it deeply buried behind the jaw, inserting its prolongations into the surrounding parts, involving the great branches of the carotid—the maxillary and the temporal arteries—embracing, also, the nervus portio dura, and surrounded by the branches of the internal jugular; when we witness the uniform failure of the attempt to dissect out the entire

gland, when injected with mercury, we are almost inclined to exclaim with John Bell—"what shall we think, then, of those surgeons who talk in such familiar terms of cutting out the parotid gland"—"the cutting out completely the parotid gland is a thing quite impossible." But, on the other hand, when we listen to the declarations of such men as Mr. Goodlad, Mr. Carmichael, Klein, Bell himself at a subsequent period, Dr. McClellan, and other distinguished surgeons of our own country; men too well informed to be deceived in this matter, and too respectable to be discredited, it appears equally impossible to withhold our credence.

How shall we reconcile such seeming contradictions? When we say that both parties are probably right, our readers may at first presume that we have given them another absurdity to ruminate upon. But in making this assertion, we mean that, while it may be utterly impossible to extirpate entire a *healthy* parotid gland, from the living subject, it may be perfectly feasible, in many cases, thus to extirpate the organ, *when its form and situation have been materially changed by disease.*

The parotid, as we know, lies deeply buried in a narrow fossa which is incapable of any considerable degree of distension. Behind it, and within, are the mastoid and styloid processes, the vaginal process, and the margin of the auditory foramen. In front are the neck and angle of the lower maxillary bone. The bottom of this cavity is narrower than its external part. Now, when the gland becomes enlarged and indurated by disease, it is obviously impossible that it should remain deeply lodged in this confined situation. By the re-action of the temporal bone behind, and the jaw in front, (the gland being in some degree wedge-shaped,) it will be gradually urged outward, and disengaged from its deep situation. This will the more readily occur, because nearly all tumours incline to assume the spherical form, the diseased action commencing in a point and being equally diffused on every side, till it encounters some tissue different from that in which it commenced. Thus will the disease of the parotid extend itself until it encounters

the cellular capsule of the organ. By this the organ is so completely insulated, that the disease will here be for a long time arrested, and the increase of volume will be entirely in the gland itself. The cellular capsule of the organ will, in most cases, even become more distinct, being rendered thicker by the pressure which is exercised upon it, producing the effusion of lymph, and causing adjacent laminæ of tissue to be super-added to it.

As the gland is in this manner pushed outward, it necessarily withdraws its processes from the deep interstices in which they are lodged. By the growth of the tumour, too, these processes are finally lost in the general spherical surface of the diseased organ.

These changes, therefore, although they greatly increase the volume of the organ, must necessarily render it a great deal more superficial, more distinguishable from the surrounding parts, by its morbid consistence, and the thickness of its involucre. Consequently, it must be far more accessible to the knife, and more easily turned out of its bed.

Another circumstance, of perhaps more importance than any which we have named, is the fact that the enlargement and induration of the gland effect important changes in the condition of the arteries which pass through and around it. In the first place, as the gland itself recedes from the deep situation which it occupies, it necessarily drags outward these organs, rendering them superficial and more tortuous. This must necessarily, in some degree, interfere with the free circulation of the blood through these arteries. At the same time the indurated mass of the gland encroaches upon these vessels on every side, and so forcibly presses their walls together as to interrupt the circulation in many of them, and finally to obliterate their cavities altogether. The effect is precisely the same wherever any voluminous and indurated tumour encounters neighboring vessels. This is the sufficient reason why so many individuals have been enabled to accomplish the extirpation of the parotid gland without the occurrence of fatal hemorrhage—why, in some instances, the

hemorrhage has, indeed, been trifling, and in one instance from a single artery.

Those who assert the impossibility of extirpating the parotid, take into consideration merely the natural healthy relations of this organ, without at all adverting to the morbid changes which may occur in its form, situation and consistence. I am very willing to admit that to remove this organ, in its healthy condition, would be next to impossible, without a fatal result; but that it is sometimes practicable when the organ is diseased, I am perfectly confident, both for reasons which I have stated above, and because it is asserted by many surgeons of science and veracity that it has been done. The testimony of those who assert that the operation cannot be achieved is merely negative; while that of those who assert the opposite is positive and unqualified. Were twenty persons to declare to me that a thing could not be done, and two others, of equal credibility, were to assert that they had seen it accomplished, I should be justified in believing the latter.

I, myself, had an opportunity of seeing this operation performed by my friend Professor McClellan, of Philadelphia, on the person of Dr. John Graham, of New York. It is not necessary that I should describe the operation, or the character of the disease which rendered it necessary. This has been very faithfully and ably done by the operator. The tumour was, however, such as I have described. The disease appeared to have commenced near the centre of the parotid gland, and as it increased, had rendered the organ more nearly spherical, more superficial, and more distinct from the surrounding parts. The arteries involved in the gland seemed all to be obliterated, except the temporal, and this bled only in the retrograde direction, and was the only vessel tied.

I carefully examined the tumour, after the operation, and was perfectly satisfied that the whole gland had been removed. The portio dura was seen to pass directly through its substance. The muscles of that side of the face were necessarily paralyzed, and have not yet entirely recovered their contractili-

ty. I had an opportunity, at the expiration of a year after the operation, to examine the face of Dr. Graham, and there was then a deep vacuity, directly behind the neck of the jaw, such as to convince me that the gland no longer existed upon that side.

The same operation was accomplished, under similar circumstances, by the late Professor Smith, of Yale College. It was also performed by the late Professor Davidge of this City, and as I understand, has recently been achieved by Dr. Holmes, of Pittsburgh. I, therefore, regard the complete extirpation of the parotid gland, when diseased, as no longer a problem.

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**ART. II.—*On the Influence of Heat and Cold in the production and cure of disease.*—(Continued from page 14.)**

In our former number we dwelt particularly on the morbid influence of heat and cold on the vascular system. We then intimated that they exercise a corresponding influence on the nervous system. We have already stated that cold, which may give firmness and tone to the contractile tissues, invariably obtunds the sensibilities of the nerves, and tends to produce a general torpor of that system; whereas heat, on the contrary, not only stimulates the nerves, but augments their vital sensibility.

When the body is in perfect health, and in a medium temperature, there is an equality of nervous excitement in all parts of the system, except in those organs the functions of which are exercised periodically. The diffusion of nervous influence, however, seems to be modified by external agents in a manner very analogous to that of the free circulation of the blood. The operation of heat on the surface of the body invariably increases nervous excitement, and augments the sensibility of the nerves. In health the nervous system seems capable of sustaining but a certain amount of nervous excitement. If it be

increased preter-naturally in one part of the system, it is observed generally to be diminished in other organs. When, therefore, the nerves are excited to increased action on the surface and in the extremities, by heat, nervous influence is derived from the deep organs, in a manner analogous to the derivation of blood from the deep-seated parts. The sensibilities of such organs are then temporarily diminished, and if the cause be long continued, the exercise of their functions rendered languid. We by no means undertake to explain, with precision, the mode in which this takes place. Those who adopt the belief that the brain generates, and the nerves convey, a subtile fluid, would explain what I assert by the supposition that this fluid is repelled from those nervous conduits which are near the surface, and driven inward upon the deep organs, which do not feel, except by sympathy, the vicissitudes of temperature.

However this may be, the assertion that there often occurs a repulsion of nervous excitement by the agency of cold, as well as a repulsion of blood, and of vascular excitement, will I think be generally admitted. But perhaps the strongest proofs are drawn from the phenomena of disease. Whenever there occurs morbid nervous excitement, (irritation) on the surface, or in the extremities, no fact is more familiar than its repulsion from such a situation upon more deeply seated organs. Such a repulsion occurs in erysipelas, the morbid excitement, by the influence of cold, being transferred from the skin to the mucous lining of the stomach or intestines, or to the brain. The same occurs, also, in gout. By the application of cold to the feet, the extreme irritation which characterizes this disease, is driven from these outworks of the system, but instantly seizes upon more deeply-seated organs.

So also, when morbid nervous excitement, (irritation) has primarily seized upon the central organs, (it being perhaps produced by the sudden repulsion of healthy excitement from the surface,) the application of heat to the surface of the body will derive nervous action from the deep organs, equalize excitement, and relieve the symptoms of irritation. This often

takes place in colic and other painful affections of the deep organs. In such cases we know that warm stupes, the warm bath, &c. are among the most effective means of relieving the morbid excitement within, and they do it by translating it to the surface. It would seem, in such cases, that the nervous system is capable of sustaining only a certain amount of nervous excitement. Some irritating cause has concentrated it in a particular organ. If, then, agents are employed for the purpose of forcing nervous excitement in remote parts, and those agents operate with more intensity than the primary cause, the current of nervous influence will be diverted from the deep organ, and directed to the surface. One of the most efficient agents which we employ for this purpose is heat, for, as I have before stated, it is the natural and necessary stimulus of the nerves.

It is obvious then, that heat and cold are productive of disease, as well by the morbid influence which they exercise on the nervous system, as by their more palpable action on the blood-vessels and their contents. Indeed it is undoubtedly necessary that the influence of these agents should be the same in both these systems, for when the blood is driven inward upon the viscera they are compelled to a more vigorous exercise of their discerning functions, and consequently, require a corresponding increase of nervous energy.

It is, then, by the combined influence which heat and cold exercise on the nervous and vascular systems, that these agents by their inordinate action generate disease.

#### *Remediate agency of Heat and Cold.*

The foregoing remarks will, in some degree, prepare us to appreciate correctly the influence of atmospheric vicissitudes in the removal of diseased action. It may certainly be regarded as an axiom in medicine, that it is the first duty of the physician, when contending against disease, to direct the most careful attention to the cause of the particular affection which may demand the exercise of his therapeutic skill. This is obviously of essential importance; first, in order to enable the physician to remove an agent which will otherwise be constantly labour-

ing to perpetuate, or re-produce the disease; secondly, because, if the disease be recent, the remedy should always be suggested by the cause—should be its direct antagonist, indeed, and produce on the system an impression that shall be inconsistent with the diseased action excited by the morbid agent.

Both heat and cold we have shown to be prolific sources of disease. They are often both the predisposing and exciting causes of some of the most formidable affections of which we treat. When, therefore, disease has resulted from the direct influence of cold, what should be the first care of the physician? Certainly to arrest as promptly as possible the operation of the cause by the substitution of heat; thus will he often break the train of morbid phenomena which are following each other in rapid succession, and then will the sanative efforts of life be often sufficient to overcome the disease. But if disease be already established, and the restoration of the natural temperature of the surface be not sufficient to restore the equality of nervous and vascular excitement, then should we resort to a degree of heat as much above that to which the surface is accustomed, as the temperature which produced the disease may have been below it. Heat, thus applied, will produce a series of vital actions directly the reverse of that produced by the cause of the disease. If the blood has been driven from the surface to the deep organs—if nervous excitement or irritation has been translated by cold to the sensitive organs within, then will heat relieve the heart and great vessels, the liver, the lungs, brain, &c. by deriving from them the load of blood which oppresses them. The vessels of the surface will be dilated and filled, and incipient congestions and inflammations be promptly relieved. A similar revulsion will be produced in the nervous system. Nervous influence will be diverted from the centre to the surface. The sensibilities of the extreme nerves will be roused, and an equality of nervous excitement will thus be produced.

When, on the other hand, disease has resulted from the inordinate action of heat on the system, then, for similar reasons,

does cold stand in the relation of a remedy. It is to be observed, however, that heat is not often the immediate, but frequently the predisposing cause of disease; hence cold, under these circumstances, is a chronic remedy. When an individual has suffered long from the debilitating influence of extreme heat, the transition to a cool atmosphere is observed, if it be not too sudden, to be always attended with an increase of health and vigor.

When, however, as occurs in certain fevers, the surface of the body becomes preter-naturally hot from the redundant evolution of ~~vital~~ heat from the extreme vessels, then is cold often a remedy immediately efficacious, at least in alleviating the symptoms of the disease.

We would now direct our attention to the employment of these remediate agents, heat and cold, in the treatment of particular forms of disease, and to the mode of their application; and first, the employment of heat, in the cure of those diseases which arise from the influence of cold.

Whenever there occurs a sudden transition from temperate to extremely cold weather, the living system is always strongly impressed by the change. The more sudden the transition the less capable are the powers of life of resisting the effect. At such a period there frequently takes place a variety of diseases which every one immediately ascribes to the influence of cold. The character of these affections will very often depend on the peculiar susceptibilities of particular individuals. Some, for instance, have irritable lungs; others have digestive organs which are predisposed to disease; a third class are prone to cerebral disease; and a fourth to rheumatic inflammations of the muscles and fibrous tissues. Sometimes there will exist, at the time, an epidemic constitution of the atmosphere, (to use the phraseology of Sydenham) which predisposes the systems of nearly all individuals to the same form of epidemic disease. Cold, under these circumstances, is merely the exciting cause of disease.

Commonly, when the injurious impression of cold has been made on the surface of the body and in the extremities, there

will take place, before any specific character of disease is made manifest, a general commotion of the whole nervous and vascular systems. The circulating fluids being driven inward on the heart and great vessels—upon the stomach, intestines, liver, lungs, brain, &c. &c. these organs are immediately disturbed in the exercise of their functions. The fact that digestion is at once interrupted by such disturbance of the balance of action, has undoubtedly been observed by every individual in his own person, and especially by those who labour under the occasional symptoms of dyspepsia. When such an individual immediately after taking food exposes himself to unusual cold, he soon begins to experience uneasy sensations in the stomach—flatulence, erutations, nausea, perhaps vomiting and cholic pains. The other deep-seated organs are also disturbed, but in a less obvious manner.

The symptoms of general disorder thus produced, and which will perhaps soon result in some local, permanent, and more distinctly marked disease, may generally be at once arrested by the employment of heat applied to the surface. When the cold has not been so extreme as to freeze, or render perfectly torpid the parts exposed, so that a sudden transition will create disease in the chilled parts, the use of warm baths, of warm fomentations, frictions with warm cloths, the atmosphere of a warm room, or gradual exposure to the more intense heat of a fire, will, with surprising promptitude, interrupt the train of morbid phenomena, and restore the equilibrium of action. This result will be greatly accelerated by the employment of warm drinks. Those which are aromatic and gently stimulant, such as tea, coffee, or the infusions of sage, balm, mint, &c. &c. will be found far more salutary than the ardent, spirituous stimuli. In the employment of the latter, the effect is, at best, equivocal. The action of the heart and arteries is, indeed, increased, but unless the constricted vessels of the surface be made simultaneously to yield, the blood will not be equally diffused on the surface, but will be driven with violence upon the organs already disposed to become engorged. The action of alcohol, under

these circumstances, is known to produce a feverish excitement, which is nothing else than *unequal* excitement.

But the physician is not often called upon to counteract the injurious effects of cold, till disease has become more completely developed. In the winter season of frigid climates, the organs most obnoxious to the influence of cold are the lungs. The reason is, that no other organ of the human body is exposed to such vicissitudes of temperature. When we leave the atmosphere of a warm room, and expose the body to a temperature perhaps not much above zero, the surface of the body being protected by abundant and warm garments, does not immediately feel the impression. But by respiration the atmosphere is necessarily brought into immediate contact with the lining membrane of the lungs. Not only the mucous membrane, but the parenchyma of the lungs, feels the impression, and so also does the pleura pulmonalis, for we know that it is but at an insensible distance removed from the mucous surface. In the superficial cells their adherent surfaces are almost in contact with each other. Consequently the extreme vicissitudes of temperature to which the lungs are exposed, may produce catarrhal inflammations, pneumonia, or pleuritis. Each of these forms of disease, when produced by cold, is ushered in by a chill, attended with a recession of blood from the surface. The more severe and the longer continued the chill, the more intense and persistent is generally the disease. The cold stage, or that of oppression, often continues long after the disease is located. It becomes then of the utmost importance, that efficient means should be promptly employed for the purpose of diverting the circulation to the surface and equalizing excitement. Heat, it is true, when used under these circumstances, will increase the general action of the vascular system; but this evil is more than doubly counterbalanced by the promptitude with which it cuts short the forming stage. Heat, for this purpose, should be associated with moisture, for, thus applied, it stimulates less, and relaxes more. When we have once restored the warmth of the surface and the extremities, and established a reflux from the engorged organ,

we have it more completely in our power than before, to command the force of the general circulation. Indeed, before we have accomplished this, it is sometimes almost impossible to abstract blood with sufficient rapidity and in sufficient quantity, because of the sluggishness with which it circulates. This difficulty we have several times encountered in the treatment of these affections, and after making an unsuccessful attempt, have been compelled to delay till warmth was restored to the surface.

When, from the usual re-action of the heat and great vessels, the second stage of the disease has resulted—that of morbid excitement; heat as a remedy is of course not generally admissible. The rush of blood which then takes place to the surface results from the stimulation of the heart, the action of which becomes greatly increased. The effect is very different from that which is produced by the stimulation of the capillaries by heat applied to the surface, for in the latter case the heart is gently excited through the medium of the extreme vessels, and the blood is solicited toward the surface, not forced by a vis-a-tergo power alone.

When general febrile excitement has taken place, heat will, for the most part, only aggravate this morbid state. But still we shall often be able, in the progress of the disease, to put this agent in requisition. Often it will be observed that, while one portion of the surface of the body is preter-naturally hot, another, and most frequently that of the extremities, will be cold. While, then, we suffer a cool atmosphere to bathe one part of the surface, another may, for the important purpose of equalizing action, be cherished by warmth.

In the latter stages of the disease, when collapse has taken place, the heart and arteries having become exhausted by their ineffectual struggle, the surface again becomes cold and exanguious. Then again is heat necessary, not only for the purpose of equalizing excitement, but as a general stimulus to the system.

Sometimes the class of diseases of which we are speaking, in consequence of some epidemic tendency, assumes the typhoid character. Pneumonia typhodes is a disease which has ravaged almost every part of the northern section of our country. This disease is characterized by a remarkable retrocession of

the fluids from the surface, by long continued and repeated rigors, with coldness of the extremities and skin. There are few diseases in which the revulsive influence of heat is more beneficial than in this. During the years 1812, '13, '14, when it prevailed very generally in the northern section of our country, so pre-eminent was the vapour bath found to be as a remedy in this formidable disease, and so generally was its utility known and acknowledged, that, when physicians could not be promptly obtained, it was used in the domestic way, and often with such complete success as at once to overcome the disease.

Dr. Gallup, from whom we have the most complete account of this epidemic, speaks of external warmth as a remedy second to none in importance, in the treatment of the disease. "Bleedings" he says, "without a particular regard to *external warmth* and collateral circumstances, are often injurious."\* Again.—"As the causes of the disease act upon the nerves, and show their morbid influence on the surface of the body, by coldness in the first stage, want of perspiration, &c. the natural indication is to restore warmth and activity to the surface as quickly as possible. I have succeeded in this oftentimes by the use of the warm bath. It is one of the most powerful agents we can employ, while, at the same time, it is safe and agreeable. Nothing is more common than for patients to express it, as a great luxury. If it does not immediately bring on sweating, it invites the circulation to the surface, relieves external chills, and internal pain, and prepares the system for the remedies which are soon to follow. Where the bath cannot be obtained for immersion, rolling the patient several thicknesses in blankets, dipped in warm water, serves as a substitute."†

Nor is warmth less important as a remedy in the treatment of spotted fever—(typhus petechialis—typhus syncopalis—cold plague.) This disease seems also to be the offspring of cold operating upon an epidemic predisposition. It prevailed in New England immediately previous to the disease of which we have been speaking. It also bore to it a very strong analogy. Like it, it was ushered in with chills and torpor. The deep organs

\* Gallup on Epidemics, p. 75.

Idem, p. 300.

were greatly oppressed, and the blood seemed to desert the surface. In this disease no one remedy was so efficacious as the vapour-bath. Its utility was so generally known, that no sooner did the disease announce itself, than the remedy was put in requisition, whatever might be the distinguishing traits of the individual case. When the remedy came to be generally known, it robbed the epidemic of half its terrors. All the usual modes of applying warmth to the surface were also used. A medical writer who has probably had better opportunities than any other individual to become familiar with its effects, speaks of it thus—"Perhaps no remedy is better agreed on among physicians as being generally useful in this disease, than sweating, or, in other words, the application of external heat. If it is not always useful, it is in some solitary cases, where there is an abundant heat from re-action having taken place in vigorous habits. At the onset of the disease, however, this remedy may be said to be always useful."—"External warmth is of vast importance in keeping up the centri-fugal action of the system. If the action is allowed to recede to the centre, by neglect of external warmth, after sweating has been used with advantage, the patient is apt to be exercised with sinking distress, and will be in danger, if heat be not immediately applied."\*

In Typhous fever, warmth, if used, requires to be managed with the nicest discrimination. In this disease perhaps cold is a more frequent remedy than heat; yet the latter is undoubtedly of great value in the forming stage of simple typhus, and indispensable in the congestive typhus of Armstrong. This form of the disease is, indeed, nearly allied to, if not identical with spotted fever. Dr. Armstrong remarks, in regard to simple typhus, "the warm bath is a safe and efficacious remedy, and, with the means above mentioned, has considerable effect in equalizing the circulation." Again, in speaking of the stage of collapse he remarks—"This depression of the animal heat, however, occasionally comes on in the collapse of typhus, without any apparent cause; an instance of which I have witnessed in a medical gentleman, who I believe would have died

\*Gallup on Epidemics, p. 251-2.

if external and internal warmth had not been promptly and perseveringly employed." On the treatment of congestive typhus he says—"when the pulse still remains oppressed, and the tide of the circulation does not return to the surface, and more especially if blood has been freely drawn, some wine with warm water should be occasionally exhibited, and the patient speedily immersed in a bath, strongly impregnated with salt, and at least about the temperature of 100°. He should remain in the bath till his skin becomes warm, and on being removed, it should be well rubbed all over with hot flannels; and he ought then to be laid in an aired bed with bottles of warm water at his feet. This plan together with tepid wine and water occasionally, will often promote a flow of blood towards the skin, and considerably relieve the viscera from congestion. Indeed, if the bath can be prepared sufficiently soon, it is far best to immerse the patient in it first, and either to bleed him while he remains in it, or immediately after he leaves it. In some very severe cases, I have found it impossible to get enough blood until a warm bath had been premised, so prepared was the general circulation before its employment."

Dysentery is another disease which is much influenced by vicissitudes of temperature. Its predisposing cause is heat—its exciting cause is cold—suddenly suppressing the abundant cutaneous secretions, and repelling the fluids in a copious tide from the surface to the centre. Some of the older writers regarded it as a fever turned inward upon the intestines. When dysentery is excited by cold, no remedy is so efficacious in subverting it as heat associated with moisture. These agents reverse the series of actions produced by the morbid cause—they divert the fluids and nervous excitement to the surface. As soon as universal warmth is produced on the surface, together with perspiration, the symptoms are observed immediately to abate. The value of this remedy is well appreciated by Mosely in his valuable work on the diseases of warm climates. It is there dwelt upon with great emphasis, and ample proof is given of its beneficial effects.

[To be continued in our next.]

## Hybersaria.

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**ART. I.**—*Twin-case of Partrition, in which the placenta was attached over the os uteri, and was delivered immediately after the first child, with safety to the mother and offspring, by G. C. M. Roberts, M. D.*

On the 30th of August, 1829, I was called to Mrs. M. the lady of one of our most worthy citizens. She being in an advanced stage of gestation, I found her considerably agitated on account of a discharge of blood, per vaginam, to which she had never before been subject under similar circumstances. On examination I distinctly discovered the edge of the placenta hanging in the os uteri, upon which rested the head of the child. Labour progressed readily, and about 8 o'clock she was delivered of a daughter, of rather larger size than is usual.

On then applying my hand to the abdomen of the patient, I found it considerably distended, which, for the moment, satisfied me that there was yet another child in utero. However, on examination, per vaginam, not being able to discover any thing except the placenta, I was led to suppose that perhaps the distension arose from the retention of water and blood, of which there had been but little evacuated. In a short time the placenta, which was unusually large, came away accompanied by a very profuse and continued hemorrhage, which very much prostrated the patient. I was not a little surprised to find attached to it another cord communicating with the uterus. Without hesitation I introduced my hand, seized the feet of the child, and brought it away. The hemorrhage ceased in a short time, and every thing went on well. The lady was highly fa-

voured during convalescence, and was soon enabled to attend to her domestic affairs. The children are at this time both living and in the enjoyment of health. The parent also, has better health than she has enjoyed for the last two or three years.

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The above is a very unusual and interesting case, and should teach the practitioner to be ever on his guard, lest some unusual occurrence, if not adverted to, should jeopard the life of his patient or patients. Had the birth of the second child, in this instance, been suffered to linger, it must have inevitably been lost, for there was but one placenta, and this being expelled the foetal circulation had, no doubt, ceased before the last child was born. Even had the operator delayed sufficiently long to suffer the descent of the head into the pelvis, the child would probably have been lost, because it would then have been impossible to turn, or in any way to accelerate the birth, unless by instruments, in the use of which there is always delay. The interference of the accoucheur was necessary, prompt and happy.—*Editor*.

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ART. II.—*An account of three operations for tying the great Carotid Artery, with their results, by Professor R. W. Hall of the University of Maryland.*

PROFESSOR SMITH: *W. Lexington-st., Feb. 10, 1830.*

SIR—In accordance with your request, I send you an account of three operations for tying the great carotid artery, with their results.

CASE I.—On the 16th day of April, 1822, I was requested by my friend Corbin Amos, M. D. the Physician and Surgeon of the Baltimore Alms House, to visit with him *Samuel Planter*, a Ship Carpenter, aged 55; who had been admitted into that Institution, with a tumor of the left autrum maxillare. The tumor protruded from the part, of the size of an apple—and it was supposed that great danger from hemorrhage might ensue from an attempt to remove it. This tumor made its appearance in

September preceding. The teeth of the side affected had been extracted. The alveolar process, the bones of the face over the antrum, and the palatine arch on that side, were evidently softened. The orbit of the left eye was invaded and diminished, and the passage of the left nostril was quite obstructed. The face was distorted; and painful, more especially when pressed upon—the nose and upper lip were pushed over to the right side—fever at night—he has used ardent spirits freely, but not so as to cause intoxication—when the tumor was punctured with a lancet through the alveolar process, it did not bleed or suffer pain.

At the request of Dr. Amos, and with his assistance, I proceeded on the 23d April, to perform the operation of tying the great carotid of the left side, with a view as had been decided on previously, of cutting off the supply of blood from the tumor. A number of young professional gentlemen were present. A double ligature of silk was carried under the artery by the curved eye-handled probe; tied above and below, about three quarters of an inch apart, and the artery divided between them, and the wound dressed as usual. He felt no pain or confusion of the head after the operation. In the evening he had slight nervous twitches—was let blood; took an anodyne draught, and slept well—next day he was composed—deglutition in a slight degree painful—no pain of head or tinnitus aurium. On 25th, his feelings much improved—pressure of tumor excites no pain—appetite good. 27th—tumor evidently diminished, and not painful to touch—the ligatures came away on the 16th day after operation. In my case book, from which I now make an extract of the above operation, I also find, that “on 17th June Samuel’s face has lost much of its distortion—the palatine bones are more firm and regular—the alveolar process much less in size—the sight of the left eye, which was almost destroyed by the tumor, is now entirely restored. He expresses himself much pleased with his present feelings, and with the results of the operation.”—At intervals of two or three months he presented himself at my office, and allowed the pupils to examine

the face, &c.—A very slight enlargement of the part remained—since which time I have not seen him, neither have I heard any account of him. The above is the case referred to by my friend, and then colleague, Professor Pattison, page 484, (appendix) of his edition of Allan Burns' "Surgical Anatomy of the *head and neck*."

CASE II.—March 7th, 1825.—Sarah —, aged about 60, was admitted into the Baltimore Infirmary, with a large tumor of the left *autrum maxillare*, encroaching on the nostril and eye of the left side, and causing great distortion of face. The tumor had also pressed into the throat and mouth, to such a degree as to deprive her of the power of articulation. Deglutition was also very difficult, and a small quantity of fluid only could be received into the stomach at intervals. In consultation, it was decided, "that the application of the ligature on the great carotid of the same side, offered the only probability of relief in her case,—and that her extreme state of debility and emaciation, even rendered this expedient very doubtful in its result."

On the 10th March, I proceeded to perform the operation for tying the carotid, as described in the first case, in the presence of several of my colleagues, and of many professional gentlemen of the City, and Students of the University. The patient manifested a disposition to syncope before the ligature was applied, although the quantity of blood lost did not exceed one *drachm*. The perfect insulation of the artery before tying it was particularly ascertained at my request by Professor Baker and others. The wound was dressed in the usual manner. The exhaustion of the patient continued when laid in bed, and she died on the third day.

CASE III.—Everist Whitaker, aged twenty-three, was admitted into the Baltimore Infirmary, February 12th, 1826.—About the 12th November preceding, a swelling of the right cheek appeared, after the extraction of one of the superior molar teeth. This tumor yielded to external applications and nearly disappeared. Three weeks after the appearance of the tumor, a similar swelling of the left cheek manifested itself, which in-

creased rapidly, causing extensive and foetid ulceration of the walls of the mouth, and penetrating into the antrum. In this state he was admitted into the Infirmary. It was decided in consultation, to adopt the alterative and tonic plan of treatment for the present, as doubts were entertained of the specific character of the disease by several who were present.

The ulceration advanced, and destroyed the skin covering the cheek. A tumor of considerable size also formed above and posterior to the ulcer, which, in consequence of its defined character and attachment to the cheek, was removed by the knife, and the vessels were secured. The progress of corrosion was soon obvious, and it was now admitted by all the gentlemen in consultation, that his disease was cancerous. It was decided that the great carotid of the left side should be tied, with the hope that, by cutting off the usual supply of blood, a change might be effected in the progress and character of this malady, which had resisted all external and internal remedial means. The operation was performed in the manner designated in the preceding cases, in the presence of several professional gentlemen. The patient suffered no pain or inconvenience from the operation, apart from the wound—continued to move about the house as usual, and took his usual quantum of food with zest.

The specific ulcerative process still continued—no perceptible improvement being apparent after the operation—and at the end of about six weeks, he fell a victim to the disease.

Very truly, yours, &c.

RICHD. WILMOT HALL.

## Analytical Reviews.

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SELECTED FROM THE MEDICO-CHIRURGICAL REVIEW.

ART. I.—*Observations on Local Diseases, termed Malignant. By Benjamin Travers, F. R. S. &c. &c. Part I.*

No one who observes with attentive eye the signs of the present times, professionally speaking, can fail to remark the increasing taste for morbid anatomy and pathology in this country. Time was, 'tis *not* sixty years since, when the growth and use of the articles in question were almost monopolized by France, and the English practitioner was lamentably deficient in the knowledge of disease afforded by the scalpel and the saw. We will not deny, indeed we cannot, that a portion of the old leaven still sticks to many, and the bigotted routinist is yet to be found, who professes to know little and care less about morbid anatomy and post-mortem examinations. With him the *interest* of a case is, in the Hudibrastic acceptance of the term, "just what it will bring," and when the breath is out, the patient is consigned for good and all to the undertaker and the earth-worm! We fear, however, that this sacred band is thinning daily, not so much, we allow, by desertion, as the ruthless scythe of Father Time, lopping sage after sage from its ranks. The great majority of the profession, are, however, of a temper somewhat different from the select few that oppose all reform in science as innovation, all innovation as mischievous error. But we possess amongst us those who are sinning on the other side, who advance too far instead of too little, and would seem to regard the stores of information gradually formed by the labours and the labourers of twenty centuries, as so much rub-

bish, to be *shot* as soon as possible, in order to make room for the showy structures of modern days. These rash men, these Caliph Omars in their way, who would burn the learning of antiquity because it is not in their Koran, are ten times more active, and therefore more dangerous than the drones.

We have no wish to figure as enthusiasts, nor to rate the discoveries of the moderns for more than they are worth, but still we have no hesitation in expressing our belief that the science of medicine is improving, in spite of both the parties to whom we have alluded. Neither can it be denied, in our opinion, that the main source, the *fons et origo*, of that improvement is to be found in the cultivation of morbid anatomy, in other words the structural alterations that constitute disease. Much has already been obtained, and much is yet to be got, by diligently following this track. It is on this account that we have always endeavoured to place before our readers the researches of pathologists more fully, perhaps, than any contemporary journal of medicine, and we trust that we have not been altogether unprofitable labourers. At the same time we have been cautious to point out the dangers and delusions that must necessarily ensue from trusting too implicitly even to morbid anatomy. There are things in heaven and earth that pass our philosophy most woefully, and the phenomena of disease are assuredly amongst them. He who imagines that post-mortem researches will make all clear at the bed side, will find himself egregiously deceived, despite of the confident and somewhat arrogant declamation of certain writers of the present day.

We were led to the foregoing remarks by the subject of the paper to which we shall direct the attention of our readers.—Observations “On the Local Diseases termed Malignant,” is a title which promises but little in a curative or practical, but much in a pathological point of view. Mr. Travers is already so favourably known to the profession, as an author and a surgeon, that nothing from us could raise his reputation in either character. Whether the present paper will prove a worthy descendant of those that have previously sprang from the same

pen, the public at large must decide. The *fiat* is with them, and we now proceed to place before our brethren, very many of whom will never peruse the original memoir, the materials whereon to form their judgment.

Mr. Travers, in the genuine Horatian style, rushes at once *in medias res*, and begins by informing us that chronic local diseases may be divided into tractable and intractable. Mr. Travers allows that the division is too general—we think it is fundamentally bad. A chronic disease may be tractable at one time, intractable at another; or it may be intractable merely from situation; or peculiar circumstances, general or local—in short, the exceptions to such a division are so great as to eat it to the very kernel. Why not, we would ask, be contented with the old-fashioned terms of malignant and non-malignant? We all conceive that we understand them, and that is a point of some importance. Mr. T. observes that a disease may be intractable in its *nature*; first, from its depending on a poison absorbed, as the venereal; or on a bad state of system, as the scrofulous; or a cachexy made up of both. Secondly, “from its being a disease of a part which, when it has reached a certain stage, generates a poison and thus diffuses its species and destroys contiguous textures, so that after this stage is reached, however complete its apparent extirpation or destruction, it is liable to re-appear.” Thirdly, from its being a disease of the constitution shewing itself primarily and exclusively in tumours, bearing a similar character, in various parts of the body, and proving within a short period destructive to life, in despite of the earliest interference.

Such are our author's definitions of diseases intractable in their nature, and if ever proof was wanting of the sandy foundation of nosology, these very definitions would afford it. The two latter classes are stated to embrace cancer, and they evidently do so. The first comprehends syphilis, scrofula, and their combinations; yet why these two diseases should enjoy such favour we cannot very clearly see. Surely the sore, or the node, or the eruption of syphilis is not *necessarily* intractable

in its nature, and if *accidentally*, the whole passage is palpably absurd, for a property cannot at the same time be accidental and inherent in the nature of a thing. We hate cavilling, but would recommend Mr. Travers to re-write the commencement of his paper.\* To do him justice, he appears to feel the pressure of his incubus, for he quickly drops the term intractable (a bad one in every respect) and proceeds to the consideration of "the diseases termed malignant," i. e. incurable, and leading sooner or later to the patient's destruction.

It becomes a serious question whether a disease be malignant on its first appearance, or grows so in the course of time, having arisen under circumstances favourable to the attainment of malignity. If the former be the fact, it is, *è principio*, a disease of the constitution, whence alone the character of malignity can be derived. The following views are just, but they must be *studied* to be perfectly understood; *reading* them is not enough.

"It is conceivable that a simple local disease may become malignant by the influence of the constitution upon it, as a simple fever may become typhoid or putrid, but a strictly local affection cannot be malignant. When we speak of the decided malignity of a tumour, or ulcer, we mean to say, that it is such a disease of the system shewing itself in a part. When we say that it has a malignant aspect, or resembles a malignant tumour or ulcer, we mean that it is analagous to those in which the constitution, sooner or later, takes such an action. We cannot well conceive of malignity, as the exclusive or innate property of a part. A change of structure, whether of increase or loss of substance, which not only resists every remedy, but which, being extirpated or destroyed, is reproduced either in the vicinity or at a distance from the original site, is certainly not, in strictness, a local disease. But if from any local cause a sore refuses to heal, or falls into gangrene; if by the extension of the ulcerative process blood-vessels are opened and fatal hæmorrhage ensues; if by the profuseness of a secretion the patient dies exhausted; if by the incessant irritation of the nervous system, or the morbid actions set up in vital organs under a protracted symptomatic fever, life is extinguished; the disease does in no

\*The fact is that it had better be omitted altogether, for assuredly it explains nothing, leads to nothing, has no natural connection either with the title or the body of the paper, and is only a clumsy kind of prologue after all.

respect imply a malignant nature, though often so considered, malignant diseases being subject to a similar termination. It is to incurableness from causes not local, and consequently the disposition to appear in more than one part at the same time, or to re-appear when the first affected part has been freely removed, that the term malignity is applicable.

"If a local disease were from its earliest germ impressed with a malignant character derived from a morbid matter in the constitution, it would be so much a constitutional disease, that the removal of it could never be urged on the ground of permanent benefit. To one species of malignant disease this character is applicable, as I shall explain hereafter.

"But although a local disease, strictly speaking, cannot be malignant, it is clear that a disease, altogether local in its commencement, may in its progress stir up an action of the constitution which imparts to it that character, or a malignant constitutional disease may only shew itself in a part.

"Again, constitutional malignancy may not shew itself in any part by a specific organic change, as is the case with some poisons and contagious fevers; whereas the disease of a part must derive its malignant property from the constitution." 199.

The inference drawn from the preceding observations, is this; that the scirrhus tumour may be, "and undoubtedly is," in the first instance, a local and single disease. The proof of the assertion will be found, according to our author, in the record of "a thousand instances of the early and complete removal of the disease, without threat of return during many years of the patient's after life." This may even be the case under otherwise favourable circumstances in the ulcerated stage. We laud Mr. Travers's premises, but dissent in a great degree from his conclusions respecting the non-malignity of the scirrhus tumour. It is a flattering tale that we are told, but sad experience compels us to attach light faith to the thousand successful operations for cancer upon record! If Mr. Travers can but prove the soundness of his views respecting cancer, he will assuredly confer a boon upon science and humanity, that must immortalize his name. But we dare not hope it. Mr. Travers writes, that "*to incurableness from causes not local, and consequently the disposition to appear in more than one part at the same time, or to reappear when the first affected part has been freely removed, that*

the term *malignity is applicable.*" Surely the scirrhus tumour answers to these characters. However, our author considers the question more fully farther on, and we drop the discussion for the present. We shall meet again at Phillippi!

"We may consider carcinoma as a genus of the order 'malignant diseases.' Its species are 1st. the scirrhus, 2d. the medullary. Their respective modifications and varieties are to be referred to those of structure. The first has been also called the 'hard' or the 'stone' cancer—the second, the 'soft' cancer, 'fungus hæmatodes'—'encephalodes'—'melanodes'—'fungoid inflammation'—'medullary sarcoma,' &c. &c. according to its varying phenomena of colour and consistence. The inconvenience of a change, or a multiplicity of name, is far greater than the retention of one that might admit of improvement. Medullary is the most descriptive and comprehensive definition; I shall therefore retain it." 201.

Whether Mr. Travers does well in considering scirrhus and medullary sarcoma, or fungus hæmatodes, as species of the same genus, carcinoma, we shall not take upon us to determine.—Certainly all the forms of malignant degeneration evince a very marked disposition to run into one another, and scirrhus and fungus hæmatodes have been found to exist at the same time in different parts of the same individual. Notwithstanding this, however, we had rather not lump them together under the indefinite term of cancer, because they materially differ in structure, progress, and even malignity. In our opinion, nosological arrangements of local diseases throw upon a door for vagueness both of observation and description. If a man considers many affections as merely varieties of one, he is naturally apt to attach less importance to their discrimination, by which means pathology, and ultimately perhaps even practice, is the sufferer. Our author proceeds to treat at length of the *scirrhus cancer*, or in common parlance, scirrhus.

It originates in some or other description of secretory structure, as 1. the follicles of the mucous membrane; mouth, fauces, stomach, and intestinal canal: 2. of the reflected integument at the orifices of the uterus, vagina, anus, urethra: 3. of the skin, especially where they most abound; as the face, scrotum, pre-

puce: 4. the secreting glands termed conglomerate, as the lachrymal, salivary, mammary,—the liver, pancreas, testicle: 5. the lymphatic, absorbent or conglomerate glands. Mr. T. is not aware that it originates in other textures, and proceeds to consider the cause of the exclusive liability of secretery structures to scirrhus. Passing over the theories with which he contends, and which, it must be owned, are unsatisfactory enough, we must mention the one advanced by himself.

“Glandular organs are the seat of scirrhus, because they are more abundantly than other parts supplied with vessels whose office is the separation and combination of new materials from the circulating fluid; and it is sufficiently probable, that when, having been habitually and actively employed, they cease to be so, these vessels make preternatural deposits, and expend their energies, wantonly as it were, upon new and useless structures. This seems to me to be the origin of the scirrhus tubercle. The dilatable tissues—those most subject to changes of capacity under great diversities in the quantity and impulse of the circulation, and necessarily furnished with a very abundant cellular tissue, common or proper—are peculiarly subject to originate scirrhus.

“But, it must at the same time be admitted, that the disease often arises in those individuals, in whom the organs most frequently visited by the complaint have not been subjected to extreme variations of capacity, as in the virgin female.” 204.

We fear that Mr. Travers's bullet has scarcely hit the mark much closer than its predecessors. The cessation of secretion is a condition of things which seldom obtains in any cases of scirrhus but that of the female, at the termination of the catamenia. How is cancer of the lip, &c. in men to all appearance healthy, explained by this theory? Mr. Travers having dwelt upon the *seat* of scirrhus, next considers the *time* of its occurrence. He remarks its rarity before the forty-fifth year, its prevalence in females at “the turn of life,” and seems to hint obscurely at a coincidence between it and the osseo-cartilaginous deposits in the coats of the blood-vessels, deposits which, with other changes in the body, may be viewed as climacteric, and evince the decline of the circulating power. Such changes he imagines to be connected with a sluggish and feeble, per-

haps obstructed state of the capillary, vascular, and absorbent circulation.

*“Structure of Scirrhus.—External characters—hardness with increase of weight; inelasticity or toughness in some cases, knotty or craggy induration in others. Circumscription, and mobility beneath the skin in its earliest stage, but not to such a degree in the subjacent bed as to allow of the fingers passing beneath the tumour, and turning it edge upwards. Next, i. e. in the second stage, close adhesion to the tegument, and such incorporation with the glandular organ in which it is seated, as to have no mobility but that of the gland itself upon the parts beneath. The adhesion of the skin, either stretches, or partially retracts and puckers it, according to the smooth or unequal surface of the tumour, and to the close or loose attachment, and particular conformation of the integument at the spot, as for example, next the nipple and at a distance from it; or beneath the mucous membrane of the pylorus or rectum, and the common integument of the body. Third stage: Contraction and diminution, by pressure, of volume in the gland as the tumour increases. Abrupt projection of one large coloured tubercle, sometimes of several smaller tubercles or nodules. Irreducibility of volume and hardness by topics or medicine. Transient pains, which have been hitherto obscure and occasional, now more distinct and frequent, like the pricking of a sharp instrument, with a sense of heat or burning. Dusky or livid red colour of the skin, with resplendent tension. Excoriation or cracking of the skin at the summit or base of the tubercles, and fungous elevations, with ichorous and sanious oozing.” 207.*

Mr. Travers justly observes that no one or two of the foregoing symptoms are diagnostic of scirrhus, but that the assemblage of the whole must be admitted to describe it and nothing else, although they constitute only the external characters.—There is a tumour met with in the breasts of young women, resembling a shelled walnut in size and nodosity, of stony hardness, and irreducible by pressure, mercury, iodine, or blisters. It depends on enlargement and partial adhesion of the lactiferous tubes in a cluster, and must not be mistaken for scirrhus. Mr. T. has also met with a deep-seated, partially elastic swelling, with an uniform smooth surface, in consistence like cartilage, not painful, but gradually increasing and involving by adhesion the skin and the neighbouring parts. In this state it is a

solid, unyielding, immovable mass, which shews no disposition to suppurate, and is quite irreducible. It occurs in all ages, and often destroys life by compression of the first passages, as the larynx, œsophagus, &c. Upon section, it resembles the ovarian tumour, or the "potatoe-tumour" of the uterus; the osteo-sarcomatous tumour of the ribs, ossa innominata, and other bones. It has a dense and uniform interior. Mr. Travers does not mention in what structure this tumour has its origin.

*"Internal characters of the Scirrhus Cancer."*—These, though presenting some variety, are more to be depended upon (than the external.) In the first stage, on section, a tough, inorganizable, and pretty compact mass, of a white and yellow-brown colour, smooth and moistened by a slightly unctuous fluid; its consistence is not uniform, being hard in the centre, so as to form a nucleus. The circumference is defined by the termination of red vessels forming a vaccular boundary. Upon floating in water, and still more so by a certain maceration, the texture opens so as to bring into view concentric areolæ, having their interstices filled by a white granular matter, which may be picked out from the meshes. These areolæ are crossed by faint white lines, at irregular intervals, in the direction of radii from a centre, visible to the naked eye, and very conspicuous under a magnifier, giving the section some analogy to that of a lemon.

"In the second stage, when inflammatory action commences, and is announced by shoots of pain, the relative firmness of the centre and circumference of the tubercle becomes reversed, the centre being pulpy or broken, while the circumference retains its firmness. The surrounding parts are now found to have lost their natural elasticity by condensation of texture, and partake of the firmness and weight of the scirrhus, giving considerable apparent increase of volume to the tumour, which is now less defined at its margin, and, in fact of a compound character. The dense opaque white lines which, traversing the tumour in the direction of the radii, diminish in density as they proceed outward, and are lost in the extreme circumference of the gland, are not the production of disease, but the septa, which divide and support the lobules of which the gland is composed, in an opaque and thickened state. Within the wall of the tubercle, one or more cysts, containing a dark yellow or coffee-brown fluid, are sometimes met with, but are often not present.

"The above appearances are characteristic of the genuine scirrhus. The softened and broken down nucleus bears little analogy to the appearance of imperfect and caseous suppuration in the cen-

tre of diseased mesenteric glands, or other scrofulous swellings. The peculiar firmness of the exterior, the entire absence of inflammatory, effusions, membranous lymph, and purulent matter; and the involvement of surrounding parts in the same compact and indurated state,—cellular membrane, skin, and even muscle,—are sufficient to distinguish it. The lymphatic glands in the vicinity are enlarged, but present a very inferior degree of hardness, and on section are found to have retained their natural colour and structure for a considerable time. The septa are conspicuous, as before described, and eventually, the centre and surrounding parts undergo the same change as was observed in the texture originally affected. By extension, no parts are excepted from contamination in the progress of a scirrhus; but neither the mammary, the lymphatic, nor other glands have any original substantive share in the disease,—it is a new and interstitial deposit.” 210.

Our author brings forward the scirrhus tubercle of the liver, exemplifying not merely the insulated formation of the disease, but its stages and progress. But to proceed with the thread of the description, the ulcerative process at length opens the tumour where the cracked and livid integument, previously exuding a sanious ichor, is most prominent, and partial sloughing of the integument sometimes assists in enlarging the external opening.

“Suppuration now takes place in the surrounding cellular membrane, and as granulations spring up luxuriantly from the sides, the centre of the tumour gapes and becomes a cavity more or less considerable. The granulations have a spongy or fungoid character, and are so elevated and broadly everted as to give the appearance of additional depth and breadth to the sore. As the sloughing process enlarges and deepens the centre, the disease becomes exceedingly offensive, and although granulations continue sprouting circumferentially at the same time, they have not the power of maintaining their vitality. It is in vain that we attempt to preserve the ulcer from foulness and fetor by detergent applications; we can render it clean, but in a day or two the newly cleansed surface ulcerates afresh, instead of advancing towards cicatrization.” 212.

*(To be continued in our next.)*

ART. II.—*A treatise on the Scrofulous Disease, by C. G. Hufeland, Physician to the King of Prussia, &c. translated from the French of M. Bousquet, by Charles D. Meigs, M. D. member of the Am. Phil. Soc. Phila. 1829.*

[CONCLUDED FROM PAGE 35, No. I.]

The treatment of Scrofula rests on the following indications: 1st, to obviate the various causes; 2d, to keep the bowels free, and neutralize acidities; 3d, to elevate the tone of the constitution, and especially that of the lymphatic system. "This" says H. "is the fundamental basis of the treatment;" 4th, to allay the irritation; 5th, to avail ourselves of the aid of aliments rich in nutritive principles, also pure air, light, and sunshine; 6th, to correct the direct effects of the scrofulous taint, such as engorgements of the glands, &c.

CHAP. I. *Dietetic treatment.*—Whatever view we may take of the pathology of this disease, nothing surely can be more important than, by the selection of nutritive and easily digested articles, to have a care that the process of digestion be properly begun, and that the system be furnished with its nutritive principles with as slight an effort on its part as possible. The aliments, according to H. should consist of vegetables and meats combined—roots cooked by boiling, stale wheat bread, rice &c.; broths made of herbs and lean meat, (doubtful.) The mere paragraph which our author furnishes on diet seems to be the most defective part of his work. For much more complete and correct precepts, in relation to this topic, we would refer the medical pupil to the writings of Paris and Johnson. For ourselves, we place the utmost confidence in a careful attention to select aliments, in the treatment of this disease, and have satisfied ourselves by careful observation of the relative salutariness of many articles. We prefer solid meats to broths—beef and mutton standing first: wild meats we do not altogether reject—especially birds. Broiling and roasting are the best cookery, and "it were well they were done quickly." Stale bread, a staple article. Rice equivocal, unless qualified with something aromatic, as it is often

observed not sufficiently to excite the stomach. Potatoes not always salutary, but generally admissible. Turnips, salsafa, carrots, tomatose, are proper. Soft ripe fruits generally salutary. We cannot altogether concur with our author in regard to drinks. The yolks of eggs beat up in water with a little sugar must be a very cloying article, and, if used at frequent intervals, must interfere with the process of digestion. Beer, too, will do better for the latitude of Germany, than for ours. We recommend plain water, or if this relax the stomach too much, the common carbonated water of the shops will be found to be a most salutary beverage—but there are idiosyncracies which must always be enquired into, before prescribing a diet. We should never neglect to avail ourselves of the experience of our patient, or the parent, in regard to particular aliments.

Nothing can be more important than to rescue the patient from the foul and confined air of filthy, small rooms. Nothing can more effectually resist all medication than an atmosphere of animal exhalations—especially when fermentation is hastened by the close heat, perhaps of a stove, which also relaxes and weakens the system.

The absolute necessity of bodily exercise in the treatment of scrofula, may be inferred from that which already has been stated in regard to its absence being a frequent cause of the disease. Observe how a limb withers when it ceases for a time to be exercised! Can we expect any thing like healthy nutrition to take place, then, when the whole body is languishing with inaction? When active exercise is inadmissible, and indeed when it is employed, frequent frictions of the skin are important. Warm bathing should also constitute an important part of the plan; it cleanses the surface; it equalizes excitement; it obviates irritation; it prevents metastases, and furnishes a vehicle for the introduction of medicines into the system.

*Pharmaceutical Treatment.*—Our author judiciously remarks, that the disease being one of an extremely protracted form, the physician must not expect to subdue it by powerful and transient remedies. His plan of treatment must be chronic—he

must operate on the system with agents which assail the disease as the causes produced it—with a gentle and persevering effort. Spring is the most favorable season at which to commence the treatment of it: for then the vital powers receive a new impulse, and then changes can be wrought in the system more effectually. We must never be led away by the idea that there exists any one specific remedy, but rely upon a general alterative and invigorating plan.

The first remediate agents of which he speaks are emetics. They are valuable for the purpose of cleansing the first passages, to excite the absorbents, and to overcome obstructions. H. usually commences the treatment with a gentle emetic of tart. antim. and Ipecacuanha. Purgatives and digestives are not second in importance. They are useful, he says, to evacuate the bowels and to stimulate the absorbents; and in order that they may thus act, they should be chosen from the drastic, stimulating class, and especially when, as is often the case, there is any degree of torpidity. He very highly recommends jalap, (so much valued by Hoffman,) in four or six grain doses, combined with magnesia. Nothing is more effectual in removing mucous accumulations. We have been in the habit of employing, in similar cases, compound powders of rhubarb and calomel, quickened with gamboge or colocynth, if the bowels are torpid.

"The employment of purgatives in these cases" says our author, "is more important than is generally supposed. For my own part, I have no doubt the art has lost much of its power over the chronic affections of the abdomen, by a too general condemnation of the use of resinous substances; and it is by no means uncommon to see the most absolute empyrics succeed in cases where dogmatic physicians fail every day." This remark deserves to be impressed on the memory of every physician. Aloe is a valuable article, particularly in the second stage. He speaks highly also of Darel's tincture of rhubarb as a valuable laxative and tonic. We object, however, to the chronic use of any tincture—it wastes the vital powers of the

system, without rendering any permanent influence. H. speaks highly of antimonials. They irritate, in a peculiar manner, the stomach and bowels, and they excite the glands and lymphatics—remove obstructions—restore secretions—dispel engorgements. They act particularly on the skin when it is dry and lifeless—not to be too long continued, however, as they weaken the general tone of the system—especially beneficial in the first stage when there exist febrile symptoms, and a dry skin. The author highly recommends crude antimony, (sulphuret) it does not debilitate the system, or irritate the stomach, or produce copious sweating. It is especially beneficial in cases of scrofulous eruptions.

Mercury is pronounced by our author to be an article of indispensable importance. "It is, in fact" he says, "one of the most efficacious and oldest of the remedies employed in the treatment of the disease. It excites a specific irritation in the lymphatic system, thus subverting the peculiar excitement of the disease; it increases the actions of the glands, and corrects the acrimony of the lymph."

Mercury may be given in all the forms of the disease, but is more especially beneficial in cases of cutaneous eruptions, engorgements, lymphatic infiltrations, chronic inflammations, &c. to be used with great circumspection in cases which manifest any disposition to phthisis, scurvy, and hemorrhages. It is improper in the last stages of the disease. *It must never produce salivation.* When the system is languid, tonics may be associated with it, or mercury may be suspended for a time, and roborants used in the interval. When it creates too much irritability it may be necessary to associate it with narcotics.

As to the form in which the article is to be employed, our author speaks highly of Plenck's pill—also, of calomel. But he states that when the disease is obstinate, and has its seat in organs remote from the centre of the circulation, we must recur to the bi-chloride. We incline to think that our author does not sufficiently dwell upon the cathartic effects of the mercurial preparations. We think that we have seen the happiest

effects from the employment of mercury, (calomel) so associated as to insure its cathartic operation. When thus given, every second or third day, at the same time that it removes intestinal and biliary obstructions, it sufficiently influences the absorbent system, without creating salivation. In the intervals of its exhibition, the stomach resumes its healthy functions, and the system becomes tranquil.

Our author also speaks highly of the efficacy of the muriate of barytes, observing that it acts by a peculiar irritation on the alimentary canal, glands, &c.—it removes mucous suburra—dissipates spasm of the capillary vessels—is especially beneficial in diseased states of the skin, and in cases of scrofula accompanied with much irritability—especially cases complicated with symptoms of phthisis. In exhibiting the article it is to be dissolved in the proportion of half a drachm in an ounce of distilled water, and from ten to fifteen drops given. In a diseased state of the skin it should be combined with emetic wine. Muriate of lime is of similar efficacy. Our author speaks emphatically of bark and other astringent tonics. “I am convinced” he says, “that the persevering employment of this remedy, seconded by a good regimen, is one of the most efficacious means which we possess of opposing the disease,”—it resolves atonic engorgements—when inflammation is the consequence of weakness, it is a valuable antiphlogistic; but it is to be employed with nice discrimination, or it will often be found injurious in sthenic cases and irritable habits. It will often be more admissible in certain cases when combined with deobstruents. The bowels should be kept free during its use.

The author speaks in favorable terms of acorn coffee as a tonic, deobstruent and stomachic. Iron is an article of primary importance. It is more astringent than bark, also more stimulating—it combines with our very substance, entering into the blood. But it requires the same cautions as does the bark—it must not be employed when there is the slightest tendency to sthenic inflammation—or to phthisis—or in cases of internal suppuration; “but is the patient of a light complexion? Has he a

lax fibre? Does his constitution announce weakness? Is he disposed to the serous diathesis? The preparations of iron, work miracles in such cases"—so also, when the antiphlogistic and narcotic deobstruents produce no effects. *In rickets, iron is sovereign.* Such subjects bear it well in substance. H. often prescribes the following—iron, recently pulverised, rhubarb, canella, of each, one grain; carborate of magnesia, two grains; white sugar one scruple: mix and reduce them to a very fine powder for one dose, to be repeated morning and evening. Most generally, indeed, the author regards iron in substance as the preferable form; but as a deobstruent he speaks highly of the ammoniacal martial flowers;—iron and sulphuret of antimony, he also recommends. "The external use of iron, and especially of ferruginous baths, is still more efficacious than its internal administration."

Our author also speaks highly of aromatic and stimulating tonics. They combine an astringent principle and a volatile oil to which they owe their efficacy—they sustain the powers of the system and give an impulse to the capillary circulation. They are especially salutary in their influence on the digestive organ, and thus strike at the root of the disease by insuring a good digestion—they rouse the system from its state of torpor. Of this class of articles H. recommends sassafras in high terms. In administering it he infuses it in water and gives it cold, prepared as follows—"sassafras wood, four ounces; roots of liquorice and madder, each half an ounce. Take an ounce of each of these substances, cut into small pieces, and infuse them in a pint of hot water. The patient should drink one half in the morning, and the other in the evening. This infusion is not at all disagreeable, and children readily take it in milk, with the addition of a little sugar."

M. H. dwells at some length on the importance of narcotics in the treatment of scrofula. Most physicians regard them as of but little value for this purpose, but our author asserts, "for my own part I am well convinced there are cases in which they are absolutely indispensable, although I am free to confess that the use of them is somewhat abused." He regards them as emi-

nently useful when there prevails too much irritation—they obviate spasm and tranquilize the system. H. informs us, that it is by removing spasm that cicuta, belladonna, &c. resolve engorgements. For this purpose he applies them locally. They are very useful to qualify the effects of other remedies, when there exists extreme excitability. Cicuta is an article which he especially indicates for these purposes. Opium is more objectionable, because it injuriously influences the stomach and bowels, induces torpor of the secreting organs, and hence impurity of the fluids and general weakness. There are cases of extreme irritation, however, in which it is to be employed. Hyosciamus is less objectionable than opium. “The bitter-sweet” he says, “is a precious remedy, answering the indications of a narcotic, and resolving engorgements, without disordering digestion.” He speaks also of digitalis as a narcotic which especially influences the lymphatic system.

M. Hufeland gives us a long paragraph on the efficacy of the burnt sponge, in the treatment of scrofula. It is certainly a fact strongly in favor of the efficacy of iodine, that scientific physicians should have so much confided in an article which, till recently, was used altogether empirically, and for the efficacy of which it was impossible for them to account. H. appears to place great confidence in it. He says, that it is chiefly useful in glandular swellings, and especially in the affection named goitre, in catarrhal affections where the functions of the kidneys are languid, and in dropsies dependent on a scrofulous taint. For this article, however, the practitioner of the present day will substitute the preparations of iodine, the efficacy of which in many forms of scrofulous disease, is now generally admitted.

The alkalies, antacids and absorbents are also put in requisition. They are said to obviate the mucosities of the primæ viæ, to excite the lymphatics and to neutralize the acids of the stomach. Their combination with tonics will be found particularly useful. Hufeland has made great use of lime-water with marked advantage, especially in cases complicated with caries of the bones, glandular indurations, and pulmonary tubercles.—

Guaiacum is a remedy by no means to be overlooked; "it promotes" says H. "almost all the secretions, stool, urine, perspiration, &c." but, for many cases, it excites the sanguiferous system too much. In cases of languor and torpor it is eminently beneficial. He gives it in powder, in the quantity of from five to ten grains.

The author next calls our attention to the juices of certain tonic and deobstruent plants. The juices of the fresh plants are pronounced to be far more efficacious than the extracts which have been long kept, or the dried plants. The efficacy of these articles is proved "by the prompt resolution of the swelled mesenteric glands of animals which are put to the pasture in the spring." "The juices of brooklime, lettuce, chervil, sowthistle, borragé and many other vegetables, are the incisives and depuratives *par excellence*." They are stated to be especially efficacious in the spring of the year, probably because the system is in a state more promptly to respond to their influence, and because they are then more active. M. H. states that he has often seen glandular swellings, cutaneous rutions, and scrofulous ulcers disappear under the influence of these means. Of the bitter extracts and inspissated juices of plants he also speaks highly.

Mineral waters and sea-water are certainly spoken of too lightly. Those saline mineral waters which are aperient, and by their fixed air tonic and exhilarating, are certainly admirably calculated to restore the healthy exercise of the digestive functions. The water of Saratoga is of this character, and experience has shown it to be eminently salutary in this class of diseases, except in such cases as are complicated with pulmonary irritation and inflammation—Sea-bathing is certainly not of secondary importance. Sea-water is now ascertained to possess a small quantity of iodine. This is undoubtedly in part absorbed, while at the same time the functions of the skin are restored by the influence of the stimulating, saline ingredients. We have often recommended sea-bathing and confide much in its efficacy. Our author speaks highly of other baths as being useful to promote a soluble state of the digestive organs. By means of them,

also, many articles of medicine may be conveyed into the system which would offend or disturb the stomach, and when thus introduced they act more directly and generally on the lymphatics. They are especially useful when the skin becomes affected with the scrofulous disease; they also equalize excitement and obviate irritation. He recommends baths of malt—saponaceous baths—baths of cicuta, and for tonic purposes—of cinchona, willow, calamus, &c. &c. Ferruginous (natural or artificial) baths, also, and baths of sulphur and lime. Simple cold baths are useful by the re-action and excitement which they produce, and by the impulse which they give to the nervous and vascular systems—when charged with common salt they are more efficacious.

M. H. speaks of the necessity of occasionally employing injections instead of frequent cathartics, and especially when the latter seem much to disturb the process of digestion. Sometimes even gentle cathartics throw the stomach into such a state of irritation that its healthy tone is not recovered for several days. Sometimes, also, the remora of fæculent matters is in the larger intestines alone. Then surely, although alterative cathartics must be occasionally employed, frequent injections will be of great advantage. M. H. asserts that issues are useful adjuvants for the purpose of diverting the scrofulous irritation from important organs, as in ophthalmies, affections of the lungs, brain, &c. They are also useful to dissipate local congestions, obstructions, swellings of the joints and of the bones. The moxa, large blisters, and the mezercon form the most efficient issues.

*Topical remedies and local treatment of symptoms.* In mild cases the constitutional treatment is all that is necessary; but sometimes, in severe cases, the topical symptoms remain after the diathesis is removed. We ought, therefore, in such, to combine general and topical means. We should always seek to promote the resolution of enlarged glands, and should therefore avoid all irritating fomentations, and use only discutient means. The best resolvents in such cases will be found to be

those which gently excite the part and restore tone;—they are cinchona, mercury, cold water, cicuta, and the roborants. H. also speaks highly of the volatile liniment, oil of petroleum, camphor, opium, gum ammoniac, galbanum, beef's gall, squill, and the various stimulating plasters—especially the mercurial. Saline substances will also occasionally be found useful, and among them are named muriate of ammonia, muriate of soda, potash, muriate of baryta. The local application now most generally used, and with marked success, is some preparation of iodine. That which we employ in such cases, is the unguent directed by Mr. Manson. It is formed of one drachm of the hydriodate of potash and an ounce of lard. With this the part is to be anointed two or three times daily. It irritates the skin less than the ointment prepared of the iodine itself.

In the treatment of the goitre H. recommends the burnt sponge, purging once a week with calomel, frictions to the part with camphorated volatile liniment. If the burnt sponge and these adjuvants fail, he recommends the use of muriate of baryta. In no form of the disease will iodine be found more efficacious, generally and locally employed.

In concluding the careful analysis which we have endeavoured to make of this valuable work, we would take the liberty to remark, that the weak part of our author's therapeutic plan seems to be an overweening confidence in a multitude of remedies, some of which certainly do not merit the confidence which he reposes in them. The use of a host of remedies of uncertain efficacy, renders practice diffuse and feeble. "It is," as said Captain Shandy, "like firing sparrow-shot against a bastion." We are persuaded that the most successful practitioners are those who confide in a few heroic remedies—who are familiar with the weapons which they wield. An ingenious practitioner will accomplish a great many indications with a few articles, as the artist produces every variety of tint from the three primary colours.

## Abstract of Foreign Medicine.

### PRACTICE OF PHYSICK.

*On Spasm or Cramp of the Stomach, by Dr. Macfarlane.*—We are fully convinced that some of the sudden and unexplained deaths which we so often hear of, are occasioned by the complaint at the head of this paper, though overlooked by the great majority of systematic writers. If we can judge by the painful evidence of our own senses or the descriptions which patients sometimes draw of their own feelings, this cramp of the stomach is one of the most dreadful species of suffering, while it lasts, to which humanity is exposed. Fortunately it is of short duration, when violent in degree. Life indeed is incompatible with any long duration of the spasm. But in these cases, the complaint is by no means confined to the stomach. We are convinced that the principal seat of the spasm is the *diaphragm*, and that this location, or, at all events, participation in the complaint, occasions the dreadful difficulty, or rather the dread of breathing, which characterises the higher grades of gastric cramp. The complaint is quite a different thing from gastrodynia, or dyspepsia—though dyspeptic symptoms are often the forerunners or accompaniments of the spasms. Dr. Macfarlane has published an interesting paper on this subject in our Glasgow contemporary, for May, 1829, of which we shall take some notice here. The following is the Doctor's concise description of the attack.

"When spasm affects the stomach, the morbid excitement is communicated through the medium of the nerves to the muscular tissue, inducing the most acute pain, with a feeling of rigid contraction, violent twisting or tearing the epigastrium, soon followed by painful and interrupted breathing, difficult articulation, pallid countenance, small, hurried, and contracted pulse, and occasionally with coldness of the extremities, and rigid contraction of the recti abdominis and gastrocnemii muscles. Such symptoms will, in general, present themselves during a well-marked paroxysm of this disease."

The complaint, in dyspeptic subjects, is generally called forth by eating cold or indigestible substances, and often goes off without attaining much violence. But gastro-diaphragmatic spasm not seldom occurs where there has been no previous stomach-complaint; and where the general health has been merely deranged by confinement, sedentary employment, or the depressing passions, or great fatigue. We shall glance at some of the cases which Dr. M. has adduced as examples of this painful malady.

When the existence of spasm is once ascertained, the stimulants should not be sparingly administered. It is astonishing with what facility a spasmodic stomach will bear diffusible stimuli and strong narcotics. The quantities then taken, with impunity, would, in health, set up inflammation in that organ, and stupify the brain and nervous system. [Johnson's Journal]

*Efficacy of Iodine in Ovarian Dropsy reported before the Westminster Medical Society, by Dr. Thompson.*—Dr. T. considered it, though a solitary one, to be a case of great interest. A woman applied at the dispensary, two or three months since, with diseased ovary; and, on examination, a great accumula-

tion of fluid was found to have taken place. For the removal of this, he proposed the customary tapping; but as he knew from experience, that when performed, it seldom did more than relieve the system from the pressure of the fluid, he resolved to follow up that operation, by administering iodine to its full extent, in the hope of affecting a permanent cure. The tapping removed seven quarts of albuminous serum, mixed with pus. Two or three days after, when the constitutional disturbance had become allayed, he commenced with the iodine, which he carried to the extent of thirty-six drops to a dose, administered three times a-day. The result was, that the tumour wholly disappeared, there was no symptom of its return, health was restored, and the woman was discharged perfectly cured. The dropsy was of two or three years standing. This can be considered worth attentive consideration. In resorting to the iodine, he had reasoned thus. He knew of no stimulant the influence of which was so perfectly general; he had detected it in the urine of patients to whom it had been given; its great influence appeared to be exerted on the glands; and as the iodine attacked all the glands indiscriminately, he had presumed that it was carried into the circulation, and would have an especial effect on the ovarian gland; there appeared to him, indeed, to be something specific in the action of the iodine; and he hoped to diminish the vitality of the gland, that by tapping and diminishing the vital power of this new growth, he should be enabled to exert a greater influence over it.

A member inquired whether the iodine affected healthy as well as diseased glands.

The PRESIDENT said that, in the present case, it appeared to have no effect on the viscera, or any of the other glands. In cases in which the iodine had been given very freely, he had known the healthy testicles become nearly absorbed. With regard to the quantity of iodine which it was proper to exhibit at one time, the dose ought to be increased gradually. The stomach, which would otherwise reject it, would, by a gradual exhibition, admit of the iodine being increased to fifty minims three times a-day.

Dr. WEBSTER stated, that he had a similar case in which he should make trial of the iodine, if Dr. Thompson would see the patient with him. She had been tapped five times; the last two days since.

A paper on hysteria, from Dr. Stewart, was announced for the next meeting.

[*Lancet*.]

#### MATEIRIA MEDICA.

*Tartrate of Antimony externally applied, by Dr. Fontaneilles.*—In a paper published in a recent number of our Parisian cotemporary, the *REVUE MEDICALE*, Dr. Fontaneilles assures us that, for a great many years past, he has employed a solution of tartrate of antimony, in the proportion of one drachm to the pint of warm water, to local inflammations of the skin and subjacent tissues, with very great success. He generally, however, exhibits antimony internally, at the same time, though not in the large doses recommended by Rassori, Tommassini, and others. For instance, he dissolves about three grains of the tartrate in a quart of lemonade or barley water, and gives this to the patient for common drink. It usually produces some nausea, or vomiting, with discharges from the bowels. In erysipelas, he applies the tepid solution, and repeats the application whenever the cloths get dry. In phlegmonous inflammation—in every kind of phlogosis, in short, except carbuncle, he employs the solution, with great advantage. The existence of wounds is no bar to the antimonial, and he takes no pains to prevent it getting into them. When the phlogosis is very intense, Dr. F. does not neglect local or even general depletion as auxiliary to the above plan. He applies this solution to the inflamed breasts of females, and avers that it rapidly dissipates the engorgements of those glands.

But it is not entirely to acute affections of the surface, that he confines the antimonial solution. He uses it as a bath, local or general, in cases of pruritus, dartres, and lumbago. In consequence of the homeopathic doctrine of Haneman, our author was induced to try the effects of a twelfth to a twentieth part of a grain every half-hour or every hour, in some diseases; and though he does not consider this plan so efficacious as that of Rassori, especially in acute affections of the head and chest, yet he derived from it very evident advantages in diseases of the abdomen—particularly in fevers, and in what the followers of Broussais denominate gastro-enterites. We think the hint is worth acting upon, in cases of local inflammation, more especially in erysipelas.

*Nitrate of Silver.*—The following observations on this powerful medicine, were contained in a letter from Mr. Ceely, an intelligent surgeon in the country:

"In two cases of very painful digestion, I used the nitrate for two months, and arrived at four-grain doses. One of the patients lived on gruel two months, and subsequently small portions of fat bacon for three more; and her perseverance has gained for her that health and comfort which she had not enjoyed for five years before. In numerous other cases I have derived infinite advantage from this sedative, conjoined with the plan of diet you have so ably advocated. I have never uninterruptedly continued the use of the nitrate beyond two months; nor have I ever seen any of its ill effects on the skin. I have found this article of great use, made into a pill with extract of poppy or hemlock, or any thing similar, and introduced up the rectum in the quantity of from one to three grains, twice or thrice a day, in that simple tenesmus supervening on active or protracted diarrhoea. Its effects are more decisive and more permanent than the direct sedatives usually employed.

"I have not long since had a successful case of delirium tremens in a female, in which 485 grains of extract of opium was taken in six days; and still more recently, in a more complicated and intermittent case of the disease, 13 grains of the acetate of morphia were taken in six hours, before sleep was procured."

[*Johnson's Journal.*]

## SURGERY.

*Inflammation of Cellular Coat of the Vena Saphena Major.*—John Anderson, æt. 11, admitted January 24, 1829, under Mr. Travers: He has an irritable sore, in chief superficial, at the base of the fifth toe, on the dorsal surface. This has existed for a fortnight, being produced by wearing a tight shoe, and has been much aggravated by daily exercise. About the middle of metatarsus, an inflamed line, an inch broad, commences, and extends upwards to the groin, along the course of the saphena major. The redness is shining, transparent, and indicates the inflammation to be of a passive kind; it is more conspicuous, for a short space, in the middle of the leg; it then becomes less so for a few inches above and below the knee, but is very distinct in the thigh. The lower tier of inguinal glands slightly enlarged and tender. The inflamed line is hardened, and has a knotted feel. The boy's aspect is unhealthy, and evinces debility, otherwise his constitution is surprisingly little disturbed. He describes the pain as severe, but we do not think this arises entirely from the action going on in the inflamed parts. He has experienced no chills, and has slept well at night. He was placed immediately in bed, with the limb supported on pillows. Twenty leeches to be applied along the part, and a dose of jalap and calomel.

25th. Has passed a tranquil night—redness and tenderness in the course of the vein considerably diminished. Bowels open. Rep. hirudines.

27th. The redness remains only over the tibia—the parts are not softer, but in the groin and throughout the entire line, formerly so well marked, the tenderness is sensibly lessened. The lobulated or knotted feel to the fingers is not so perceptible.

Jan. 31st. Inflammation has progressively subsided—there is some tenderness still, and likewise induration in the course of the vein and at the groin.  
Feb. 7th. Convalescent—hardness not removed.

11th. Presented; the affected part being a little harder than natural.

In Mr. Travers' opinion, the *external* coat of the vein was alone implicated, though, for obvious reasons, such could not be very distinct. In this case, there was no œdema similar to that occurring in phlegmatia dolens

[Reports of St. Thomas's Hospital.]

*Tracheotomy in Laryngitis.*—Mr. Liston commenced by making a perpendicular cut of about an inch and a half in length through the integuments over the trachea, commencing below the cricoid cartilage; he then slit up two or three rings of the trachea, and introduced a curved tracheal tube of rather large caliber, which was fixed in its situation by means of tape passed through the rings at the external end of the instrument, and tied round the patient's neck. Instantaneous relief was obtained by the operation; for, after two or three convulsive expirations, (caused by some drops of blood entering the trachea from the wound,) she breathed with perfect ease. She got an anodyne at bed-hour, which was repeated for three successive nights. A very large quantity of mucous was expectorated for the first three days after the operation. The ulcers of the uvula and fauces have healed by the application of nitrate of silver; but with an almost complete destruction of the former appendage. During the process of cure a thick piece of bone came away, which some of the surgeons think to be an ossified portion of the thyroid cartilage. A smaller tube has lately been substituted for the one first introduced; the voice is much restored, and it is hoped that the artificial opening may soon be dispensed with, and the breathing established through the natural passages.

*Remarks.*—This case well exemplifies the utility of tracheotomy, when not long deferred, in cases of threatened suffocation from inflammation of the larynx. No irritation, no cough, no sense of choking, was, in this case, produced by the canula.

[Johnson's Journal.]

*Lithotomy after the Operation for Fistula Ani—Consequences of the Operation.*—James Hardie, æt. 37, admitted March 11th, 1829, with frequent desire to make water, which was passed with much pain along the course of the urethra and neck of the bladder, especially when the last drops were voided—urine sometimes bloody, especially after exercise or the introduction of instruments into the bladder, but without any mucous or sandy deposit. A full-sized sound passed readily into the bladder, where it struck on a hard smooth substance, which was always found lying towards the right side, and could not be felt by the finger passed into the rectum; the prostate gland was natural. Extending from the anus forwards, and towards the left side, occupying part of the incision made in the lateral operation of lithotomy, was the cicatrix of an operation for fistula in ano, performed some years previously. The symptoms of stone commenced about sixteen years before his admission, but had never been urgent, till within the preceding fortnight, when they followed, as he imagined, the use of carbonate of soda internally.

"A few days after admission, the lateral operation was performed by running a straight probe-pointed bistoury along a curved staff, grooved on its convex side. A little more than the usual time was spent in cutting into the urethra, in consequence of the hardness of the cicatrix just mentioned, but, the stone being extracted on the first introduction of the forceps, the whole operation was finished within six minutes. The calculus weighed about an ounce and a half, and was composed of the phosphates of ammonia and magnesia. During the first few days no bad symptoms occurred. About the fifth day the wound began to look foul, and on the eighth day some flatus and a little feculent matter was observed to escape from it. On examination with the finger it was found that the old cicatrix had ulcerated, producing a small aperture be-

twist the wound and the rectum, immediately above the spineter. A bistoury was passed through the opening, and carried downward, so as to divide the shinc-ter. An elastic catheter was kept constantly in the urethra, and stimulant dressings were applied to the wound. Healthy granulations soon made their appearance, and at the end of seven weeks, the cicatrization was complete, but a small opening into the urethra still remained, through which the greater part of the urine was discharged. On his return to the hospital, as directed, at the end of three months after the operation, the opening in the urethra had contracted so much, that no urine escaped by it, if he kept his thighs together during micturition, and even when he did not observe this precaution, the escape was trifling. It was proposed to apply the actual cautery for the purpose of closing the fistulous opening, but the inconvenience he suffered was so trifling that he declined to submit." [Glasgow Infirmary Reports.

REPORTS OF THE HOTEL DIEU, from *Johnson's Journal*.—*Successful extirpation of the Uterus, by Professor Recamier*.—We are happy to record another successful issue to this most formidable operation—and that in a public institution, where no colouring can be given to the facts—no veil of concealment thrown over the ultimate event.

*Case.* Agathy Pelagie, aged 50 years, was received into the Hotel Dieu, on the 24th July, 1829, under M. Recamier. She had begun to menstruate at the age of 12 years, and did not cease to do so till she had attained her fiftieth year. Examined on the day of her entrance into the Hospital, the following was the report. 1mo. Slight pains were felt in the pelvis, and also in the loins—a sense of lassitude sufficiently distressing to prevent the perpendicular posture being long maintained. 2ndo. A discharge of sanious fluid, extremely fetid and sanguinolent, of about eight months' duration. 3tio. An examination shewed the loss of one of the lips of the os tincæ. The remaining one (the anterior) was thickened and ulcerated. The same alterations were perceptible in a certain portion of the vagina near the cervix uteri. This first examination did not induce any suspicion of adhesion between the parts affected and the rectum or bladder. On introducing the finger up the rectum a tumour was found to occupy the situation of the uterus, and was concluded to be the deceased uterus itself. The various functions and the general health were in good condition. M. Recamier, who had once before extirpated the womb with success, determined on the operation in this case, and it was consented to without fear.

On the 26th July, at 7 o'clock in the morning, the patient was placed on a bed in the midst of numerous pupils and others, besides Messrs. Margolain, Breschet, Palrice, and Blandin, and the operation was commenced. M. Recamier first introduced an instrument (*pince de museux*) with which he seized the cervix uteri as high up as possible, and then dragged it down slowly and cautiously, the body of the uterus following it, till the whole came in view from the os externum. The artificial prolapsus thus effected, the operator fixed the organ in its new situation by means of another instrument (*pince erigne*) confided to the hand of an assistant. He then examined the rectum, and found that the gut had not come down with the uterus. He next introduced his finger between the anterior parietes of the vagina and the corresponding face of the retracted tumour, till he came to the junction of the two, when he introduced a bistoury with his right hand, divided the cul-de-sac at the spot above-mentioned, to the extent of an inch, and then withdrew the instrument. Through this wound the operator passed his finger, and divided some loose cellular substance till he came to the reflection of the peritoneum from the bladder over the uterus. This he divided with the bistoury once more introduced. The peritoneal incision was next enlarged, first on one side, and then on another, with a probe-pointed bistoury. The operator having searched for the broad ligaments, he passed a ligature around each, to prevent hæmorrhage, and then divided them with the knife. The peritoneum passing from the rectum to the uterus was next divided,

and the uterus itself dissected carefully away. The operation is said to have been conducted with remarkable sang froid—to have occupied only twenty minutes—and to have been succeeded by no hæmorrhage. The cervix uteri was found to be affected with open cancer; but the body of the uterus itself appears to have been very little affected. The patient bore the operation with unshaken courage, and fell asleep soon after she was put to bed. On the second day fever arose, and continued for two or three days, requiring several small bleedings. The fever ceased at the end of the fourth day, but was succeeded by a fixed pain in the right iliac region. Forty leeches were applied to this part, and the pain was reduced. The ligatures were removed on the fifth day, and on the sixth there was tension and swelling of the abdomen. Leeches were repeated. Nothing particular occurred till the ninth day, when, on examining the vagina, a fetid, dark, and sanguinolent fluid was found issuing forth. Injections were carefully thrown up during the next few days. By the twelfth day, when the account closes, she recovered some appetite, and had taken soup repeatedly. Should any thing further be published, we shall report it. Meantime the case may be considered as a successful one, as it is not now likely that the patient will die from the effects of the operation, which appears to have been performed with great skill and dexterity. [Clinique.

*II. Supposed Foreign Body in the Ear—Hydrocephalus—Tumour in the Right Optic Thalamus.*—Mr. Pearson, we believe, used to say, that if he *must* be deprived of one of the two means of information in a case, the history or the symptoms actually present, he would hold to the former and reject the latter. We cannot conceive a more injudicious decision, for no one can guard against the misrepresentations or mistakes of his patient respecting antecedent events; whereas most men can perceive what is actually before their eyes. Our own conclusions are, that in very few cases should we place much reliance upon the history *per se*, unless it be corroborated or confirmed by existing symptoms. This is our own impression, and we have now had some little experience in case-taking. The following instance will furnish a useful commentary on our position.

*Case.* A child, about 10 or 11 years of age, was brought by its parents to the Hotel Dieu, with hemiplegia of the whole left side, and violent and painful retraction of the limbs on this side almost amounting to the tetanic spasm. On attempting extension of these parts the little patient struggled and screamed, and there was strabismus of the left eye. The parents declared that these symptoms had followed the introduction of the stone of a wild plum into the left ear, many years previously, which stone could never be extracted. On carefully examining the part M Dupuytren could neither see nor find any foreign body, and the general cast of the symptoms led him to suspect organic disease of the brain. A seton was made in the nucha and light purgatives employed, apparently, at first, with good effect. General convulsions, however, came on—the contraction of the muscles of the left side became more painful—the evacuations were passed involuntarily—and three months after its admission, the patient died.

*Dissection.* No disease of the bones at the basis cranii—no foreign body whatever in the ear, which was sound. The cerebral meninges were healthy, but the sub-arachnoid cellular membrane was infiltrated with serum, and much was also found in the lateral ventricles. In the substance of the right optic thalamus was a tumour the size of a small hen's egg, of rounded shape, reddish grey exterior, and marked with numerous rough points. Its consistency was firm and its texture homogeneous, of greenish colour, and filled with a number of small cavities containing serous fluid. The cavity in the cerebral matter in which the tumour lay was irregular, and its parietes were softened. The abdominal and thoracic viscera were sound.

Had dependence been placed on the relatives' account, or severe measures used to extract the foreign body affirmed to reside in the ear, and be-

lieved to produce the existing ills, what a blunder the surgeon would have made, what a risk the patient would have run! The case should teach us caution, especially when extraneous substances are merely said to be present in any of the outlets or inlets of the body, without tangible or other positive proof of the fact. The attempt to dislodge such imaginary obstructions not seldom excites unpleasant symptoms, and might readily give a fatal fill up to any that actually existed. [Journ. Hebdom. No. 40.]

*III. Excessive prolongations of the Mucous Membrane of the upper lip.*—A young soldier in garrison at Paris presented himself in the Hotel Dieu on the 20th of April, with a great prolongation of the mucous membrane of the upper lip, which almost entirely covered the teeth on each side when the patient attempted to speak or laugh. The double kind of pouch produced by this protrusion of the mucous membrane impeding the motions of the lip, independently of the disagreeable deformity it occasioned, the gallant soldier was very desirous of an operation for its removal. M. Dupuytren having directed an assistant to hold the upper lip on one side, seized it himself on the other, and nipped off the projecting mucous membrane with a pair of scissors, curved like those for excision of the tonsil on their flat side. A brisk hæmorrhage ensued, but was soon arrested; suppuration of the wound ensued, and at the end of eight days the patient was cured.

The reporter remarks, that the seat of this disease is in the sub-mucous cellular tissue, which is hypertrophied and more or less infiltrated with serum. The mucous glands of the lip, continually irritated by the suction, motions, and pinchings which the prolongation of the mucous membrane undergoes, are generally much enlarged also. In some individuals the permanent irritation induces chronic inflammation, which may even end in cancerous degeneration. In one case, M. Dupuytren was obliged to remove a great portion of the posterior part of the lip, which had become cancerous under these circumstances.

*Remarks on Herniæ of the Muscles.*—Be not alarmed, gentle student, we are not about to heave another Ossa on the Pelions and Olympus' that already intervene between you and your diploma. We are not to add another to the thousand and one varieties of herniæ in and about that region so sacred to the divinities of surgery, the region of the groin. What we mean to describe is of quite another character.

After accidental openings, says M. Dupuytren, made in the fasciæ by surgical operations, wounds not surgical, or violent efforts, it frequently happens that the muscles, during their contraction, pass through the apertures, and form true hernial protrusions. They are sometimes very painful, and prevent the patients from using their limbs, and especially from walking, unless they are treated by appropriate bandaging. Occasionally the tumours thus formed give rise to strange errors in diagnosis, and consequent mischief in practice. A young man, for instance, the son of one of the members of the conseil général des hôpitaux, fatigued himself greatly in mounting a horse à l'Anglaise, whose manner of riding is well known to exercise greatly the muscles of the calf. A tumour supervened on the inner and posterior part of the leg, which was extremely painful on walking, or even standing still. When the patient lay down, the tumour disappeared and the pain subsided. Several practitioners were consulted on the case, some of whom thought it was a varix, others an enlargement of the nerves, but M. Dupuytren detected a protrusion of the muscles, such as has been mentioned above, and applied a bandage with complete success.

## MIDWIFERY.

*Claims of the Americans to the discovery of the Ergot of Rye.*—Sir—At page 74 of your last Journal, amongst other observations of Dr. Wetherill, is the following: "The use of ergot, in hastening the process of labour, was originally made known to the public by a citizen of New York, Dr. Stearns. It was Dr. Hosack, my late preceptor, of the same city, who first suggested its use, and gave the ergot to arrest uterine hæmorrhage. It has been said that the candle was originally lit in Italy, but if so, why was its light kept under a bushel?"

While, Sir, our Transatlantic brethren have sent forth such works as De-wees' Midwifery, Beck's Medical Jurisprudence, Chapman's Therapeutics, and Barton's and Bigelow's Medical Botany, it ill becomes any medical man to depreciate their labours; but Jonathan, as we all know, is a creature who cannot bear too much caressing; we must not then allow him to shine in borrowed plumes; and, I, therefore, contradict Dr. Wetherill's assumptions, through the same medium that he has communicated his mistaken impressions. The fact is, that the first notice that occurs of spurred rye as a uterine remedy was in the year 1688, when Camerarius stated that the women, in certain parts of Germany, were in the habit of employing it to accelerate parturition. From that period till 1774, no author had made mention of its being used; and it was then that a very brief letter from Parmentier to the editor of the *Journal de Physique*, made known that it was frequently given as a child-bed remedy by Madame Depelle, a midwife at Chaumont, in the Vexin. But this letter, which is a mere announcement of the fact, contained no other information. It was reserved for M. Desgranges to make known more fully the singular property of ergot. Having met with several midwives, in 1777, both in Lyons and its environs, who from a traditional knowledge were accustomed to employ it with no little mystery, he at length made trials of it, which for the most part were crowned with success. He published, at different times, and in various journals, the results of his practice, and specified the peculiar circumstances which he conceived admitted or contra-indicated the employment of this remedy. [*Lancet*.

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### TO SUBSCRIBERS.

It will be seen that the amount of our pages is, in the present number, increased. We preferred to commence our work in a form which might be sustained without difficulty, and subsequently to multiply our columns, as the list of subscribers and contributors should increase. For our next, we have an interesting article on the extirpation of the Uterus, from Dr. Hughey of Pittsburgh. We shall soon be favoured with a valuable article on Vaccination, from our distinguished friend Professor Potter. Professor Wells will aid us in our labours as soon as his present engagements are discharged.

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Original Essays.

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ART. I.—*Remarks on the inverted uterus, with an account of an operation for its removal, extracted from a dissertation submitted for examination to the Provost, Trustees and Faculty of Physick of the University of Maryland, by Willison Hughey, of Pittsburgh, Pennsylvania.*

It is not within the bounds of my present design, to notice all the causes conducive to the disease under consideration, but simply to state those which are known to produce it most frequently, and which may be divided into the remote and proximate. And first of the remote causes of the accident—they are such debilitating agents as induce an atony, or inability in the body and neck of the organ to contract, thereby favouring the descent of the fundus through the cervix uteri. They are long-continued expulsive efforts to accomplish delivery, compound pregnancy, weakening passions of the mind, and profuse hemorrhage. Next, of the proximate cause, which appears to be a combination of circumstances directly tending to the disease *itself*; and it is most probable that, from certain causes, the uterus takes on an irregular contraction, which must par-

ticularly affect the fundus by lessening its volume, while the body and neck remain in a state of extreme flaccidity. In this state of things, any considerable weight appended, or force applied to the fundus, capable of effecting its descent through the os internum, would produce the disease in question. Inversion of the uterus may be either *complete*, or *incomplete*—by a complete inversion is meant, the passing of the fundus and body through the os internum, or its being turned inside out, even to the very neck of the organ, “but it is not necessary to a complete inversion, that the body and fundus escape through the os externum.” The incomplete takes place in different degrees, as where the fundus descends to the os tincæ, but is prevented from passing by the contraction of the latter; or it may pass half way through the mouth of the uterus, and it may be completely inverted, except a small portion of the neck. “In the latter of these conditions, the body may be compressed or strangulated, by the contraction of the neck on the protruded part, or it may be free from this restraint.” Each of these conditions of the organ presents different indications of cure, which are amply provided for, and elaborately treated of by authors, whose sphere of observation has by no means been limited. The symptoms resulting from the displacements of the organ are of the most alarming nature, producing but too frequently fatal consequences. When the uterus is inverted, says Mr. Burns, “the woman feels great pain, accompanied with a bearing down effort, by which a partial inversion is sometimes rendered complete.” The pain is obstinate and severe, the woman feels very weak, the countenance is pale, the pulse feeble and often imperceptible: a hemorrhage often attends the accident, and is most profuse. “But it is worthy of notice that complete inversion is sometimes unattended with hemorrhage, whilst a partial inversion may be, and often is, attended with a fatal one.” Fainting and convulsions are frequent attendants, although the hemorrhage may have been trifling. This disease is most frequently occasioned by the too rapid expulsion of the child from the uterus, particularly if the cord be short or entangled

about its neck; the organ may be taken by surprise, (if I may be allowed the expression,) and become suddenly inverted. We are also informed that polypus has been known to give rise to this disease in the unimpregnated female, and it is easy to conceive how it might happen from such a cause. If the polypus be attached to the fundus uteri, the continued operation of its weight might in time drag it through the os tincæ. But I am disposed to believe that the majority of cases which occur, are solely attributable to the mismanagement of *midwives*, and it is with myself a matter of great surprise that so few cases occur, when we consider the sheer ignorance of thousands, who are permitted to practice the obstetric art. Indeed, I have had an opportunity of witnessing the baneful effects of ignorance exemplified in two cases, when officious *women*, by repeated traction at the funis succeeded, not in extracting the placenta, but in tearing forcibly from it the cord, there being very firm adhesion between the after-birth and the uterus. Inversion in a majority of instances, I believe, takes place in this way. The *accoucheur* through ignorance, grasps the cord, with a view to the delivery of the placenta, and forcibly drags at it, (the placenta being situated in the fundus uteri, and with this other circumstances being present predisposing to the disease.) The irritation occasioned by the ill-timed efforts of the *widwife* causes the fundus uteri to contract, thereby favouring its descent. In this state of things the power continuing to operate, and the inferior portion of the womb being in an atonic state, nothing but the interposition of Providence can rescue the unconscious, confiding sufferer, from the danger which threatens her.

The disease under consideration may terminate in different ways, as by fatal hemorrhage, syncope, convulsions, or inflammation; or the patient may partially recover from it, after much pain and violent expulsive efforts, the uterus gradually returning to its natural size, and giving, in some instances, but trifling inconvenience to the patient. It may also take on diseased action, terminating in foul, ill-conditioned ulcers, giving rise to

thage, an ichorous discharge, and hectic fever, gradually destroy the patient. With regard to the gnomonic symptoms of the disease under consideration, they may be enumerated briefly. "When a patient, after delivery, complains of obstinate pain, or bearing down, or suppression of urine, or is very weak, we should always examine per vaginam. If the uterus be inverted we may feel the tumour, and we may find the hard womb to be absent in the belly, or lower down than it should be; if this examination be neglected, the patient may be lost." The treatment necessary to the reposition of the inverted uterus having been particularly described by Denman, Burns, and other respectable writers on this subject, I deem it unnecessary to recapitulate, and shall therefore address myself particularly to the *object* of this paper.

In the early part of the summer of 1824, during my residence in the country, I was requested to visit a poor woman named Jane Mc——, aged 39 years, naturally athletic, but who, from a protracted illness of ten years standing, had become considerably emaciated. On my arrival I was informed by the patient, that her menstrual discharge had continued on her too long, that it was unusual in quantity, as well as quality; indeed the evacuation was so excessively copious, that she fainted upon the slightest exertion. Her face was deathly pale, lips livid, and eyes sunken as though they had receded in their sockets; respiration difficult, pulse frequent, and almost imperceptible. She complained of a gnawing pain in the loins, and a "burning heat in the womb" to use her own expression; her feet and hands were very cold, and the former somewhat cedematous. In this unpromising condition I found her, warranting, I think, the opinion that I gave, and which was unfavourable to her recovery. At this time I was ignorant of the true nature of her case, for she, from an obstinacy common to many of the lower order of people, had concealed it most scrupulously, otherwise I should have pronounced her disease fatal, unhesitatingly. However, in this alarming state of things, her extreme debility at once suggested the only efficient plan that

could be instituted, with the slightest hopes of success, and, accordingly, I ordered her warm brandy toddy, with spirits of ammonia, to have astringents employed per vaginam, and to swallow small doses of camphor with opium, with a view to their stimulating, as well as to their anodyne effects; to have stimulating cataplasms applied to her feet, and that she should remain perfectly quiet until my next visit, which would be on the following morning. On the 7th of June, I paid her a visit, and found that my orders had been punctually attended to, and that her system had reacted to such a degree, as to favour the prospect of her recovery. When I began to question her respecting her symptoms, as to the discharge, whether it was checked or not, she observed, that she was "partly relieved of it" and continued, "I did not tell you all that ailed me yesterday, because I was not certain that you could relieve me, but now I will tell you every thing that relates to my case. About ten years since, I was delivered of a child by an old woman, to whose mismanagement I attribute all my after suffering, and, since that time, I am not as I once was, for she pulled down my womb." I attempted to pass my hand up to the vagina, but it came in contact with a tumour, as large as the head of a newly born infant. On discovering this, I threw aside her covering, and had ocular demonstration of the fact. I continued my examination, by endeavoring to pass my right index finger, between the protrusion and the left side of the vulva, but soon perceived an insuperable obstacle in the way—I could insinuate my finger about one inch and a half in the direction of the vagina, but no further, for at that point its walls appeared as if reflected upon the cervix of the protrusion, and continuous with it in its descent. I then desisted from further attempts to pass my hand, directing attention exclusively to the outward aspect of the tumour. Within, and for a short distance below the os externum, the cervix of the tumour had a pale red appearance, not apparently in a state of high inflammation, but near the fundus it was very highly inflamed, tense and unyielding, with several fissures and ulcers interspersed. These fissures or splits

appeared to effuse a dark, ichorous fluid, and the ulcers presented a deep and ragged aspect, discharging matter exceedingly offensive. My patient also informed me that, from the time she weaned her child, she had menstruated with as much regularity as she had done prior to the accident; and that she had often observed the menstrual fluid exuding from the displaced organ, I was now perfectly convinced as to the nature of the case, and pronounced it to be inverted uterus. After getting possession of the circumstances already related, I questioned her as to the conduct of the *midwife*, during the accouchement, whether *she* had noticed any thing peculiar in the case; but was informed that no observations had escaped from the midwife at the time, except that "the after-birth was grown fast." My patient also informed me that the flooding, on the occasion, was very alarming, so much so, that the *woman in attendance*, insisted upon the necessity of a speedy delivery of the after-birth, and in accordance with what she thought the best practice, made forcible traction by the cord, which had the unhappy effect of inverting the organ. The pain experienced during this murderous *operation*, can be more easily conceived than expressed; she informed me that the severity of the pain abated soon after the placenta was extracted, and with it the flooding. She was confined to her bed some fifteen or twenty days after the accident, in consequence of debility, and the inconvenience of the protrusion, (for it diminished in bulk very slowly,) when she began to move about, and eventually with less inconvenience than could reasonably be supposed. This improved state of things continued as long as she nursed her child, at least during *lactation*; and it is a matter of some surprise, that when that secretion ceased, the womb enlarged and took on a diseased appearance, which gradually degenerated into what I have already described in speaking of the organ when it first became the object of my attention. At this time I conceived the uterus to be in a sloughing condition, particularly near the fundus, where two or three black spots had appeared, independent of the marks of disease before alluded to. I immediately ordered

the carbonated poultice to be applied to the womb, and renewed every five or six hours, and the tumour to be fomented with oak bark juice, after the removal of each poultice. I also prescribed as much of the best bark and wine as her stomach would bear, to be repeated at the end of every two hours, to have her bowels opened by injections, and to remain as quiet as possible. Having continued the above plan of treatment for three days, without perceiving any beneficial results, but finding, on the contrary, that a considerable portion of the fundus had actually begun to slough, giving rise to a renewal of the hemorrhage, I thought it expedient to devise some other plan. In this hopeless state of things, I reflected upon the exigency of the case, upon the inadequacy of the plan instituted with a view to its arrestation, and concluded, that nothing short of an entire removal of the organ would afford her even a chance of recovery. With this view, I advised an operation, which was unhesitatingly acceded to, both by herself and friends. Having placed my patient in the most advantageous situation, I carried a strong waxed ligature under the cervix uteri, brought the extremities together on the anterior surface, and cast a slack knot, so as to admit of its being moved up the vagina, on the included substance. I then took hold of the extremities of the ligature with my right hand, and with the left, passed my ligature as high as was possible on account of the inverted portion of the vagina. The ligature being placed where I intended it should remain, was tightened and secured with three knots; this step in the operation occasioned exceeding pain; so great was the torture which she suffered for twenty minutes, that I thought I should have been obliged to remove the cord, although I tied it as tight as possible. For a short time subsequent to the operation, I repented seriously the expedient which I had adopted; although my patient had taken upwards of one hundred drops of laudanum, yet I was apprehensive that spasm would supervene and carry her off; but fortunately the pain abated, and left her perfectly easy. The operation being performed, and the patient relieved from pain, I recommended quietness with a continuance of the tonic plan as before directed.

On the 11th June, I again visited my patient, and found her much better than I anticipated, somewhat improved in strength and spirits, and entertaining the most sanguine hopes of recovery; she had slept soundly through the night, without evidencing to her friends, who carefully watched her, the slightest pain or uneasiness. I next turned my attention to the womb, and found its circulation perfectly arrested by the ligature. This I judged to be the fact from the coldness and discolouration present. Seeing that the operation was progressing so favourably, and considering any addition to the plan already instituted improper, I took my leave, promising to see her on the following day.

12th. Appearances not quite so flattering as formerly—pulse tense, and frequently attended with an obtuse pain in the hypogastric region; flushed countenance, costive bowels, and considerable thirst, with other symptoms indicating inceptive inflammation. The tonic plan was now discontinued, and vene-section immediately brought into requisition; blood was drawn until the pain and uneasiness subsided, and oleum ricini was exhibited, aided by enemata, which had the happy effect of relieving constipation in a few hours. Her symptoms by this treatment yielded considerably, pulse full and less frequent, but the thirst continuing with a dry state of the skin, which subsequently yielded to the use of the nitrous powders combined with tart. antimon., taken in doses of ten grains of the former, combined with one grain of the latter, repeated once in two hours. The uterus at this period had assumed a perfectly black appearance, and diminished very much in volume, from a sudden discharge of putrid blood lodged in its cavity. This circumstance greatly alarmed the patient, as she attributed the discharge to a displacement of the ligature, which was found not to be so, on examination.

13th. I found the condition of my patient somewhat improved; pulse not so tense, and less frequent, than on the preceding day, but the pain not entirely removed. Blood was again drawn until the pain subsided; a mustard cataplasm was laid over the abdomen, which was suffered to remain ten hours, and injections were at the same time exhibited, composed of spirits

of turpentine, with linseed mucilage, which had the effect of removing all the disagreeable symptoms then present.

14th. My patient this morning has a slight difficulty in micturition, unattended with fever, and has slept comfortably through the night; there is also a slight hæmorrhage present, resulting from a partial division of the *substance* included in the *cord*, and which was promptly relieved by the application of a second ligature, aided by astringent injections. The irritation in the neck of the bladder, I attributed to continuous sympathy, and therefore prescribed nothing, but oil of ricini, with mucilaginous drinks.

15th. Still continues to improve, no appearance of hæmorrhage, free from fever, has some appetite, which I permit her to indulge sparingly, on account of her exceeding great weakness. Upon examining the ligature this morning, with a view to ascertain whether it still retained its position; the whole substance of the womb came away in a state of putrescency, so that its *structure* and *peculiarities* could not be recognized. I put her now upon the use of astringent injections, composed of oak bark juice, with sulphate of alum, to be used four times a day; by steadily persevering on this plan the discharge ceased from the vagina, with every other untoward symptom.

On the 18th, I made an examination, per vaginam, with a view to ascertain the condition of the parts within, and found the vagina completely *consolidated* at the point where the ligature had been situated, which was about one inch and a half from the external labia. My patient was now freed from the loathsome disease under which she had so long laboured, and once more began to derive enjoyment and pleasure, from sources, that to her, appeared dried up forever. The debility consequent upon this operation, as may be supposed, left the patient exceedingly emaciated, from which she gradually recovered by the use of the cold bath and tonics.

Six weeks after the ligature had been applied, my patient was sufficiently recovered in strength to walk the distance of one mile, without the aid of an assistant. When she first began to walk, a considerable uneasiness was experienced in the pubic

region, at times, almost amounting to pain, which was remedied by the use of a strong flannel roller and friction. At the end of four months every symptom of abdominal irritation had disappeared; her appetite became craving for food, which she indulged not sparingly; so that she increased in vigour and corpulency, to an astonishing degree, in fact about six months subsequent to the removal of the uterus, I questioned her relative to her health and feelings, when she informed me that her health, never had been better, and that she had but one *thing* to complain of, which was *bulkiness* of body; observing at the same time, that she had increased in weight nearly forty pounds since the operation had been performed. After she had recovered from the immediate effects of the operation which have been already described, there succeeded an uninterrupted interval of good health, of eight or nine months, when she was suddenly seized with pain in the right side, extending to the shoulder of the same side, fever and confined bowels; with other symptoms indicating diseased liver. For the removal of this disease she was bled from *time to time*, evacuated freely with calomel purgatives, and was blistered. The disease appeared to yield to this plan of treatment, but left her in a state of debility, from which she never perfectly recovered; her feet became adematous, countenance sallow, with a propensity to night sweats and other hectic symptoms, indicating great irritability of system, consequent upon a worn out constitution. My patient now exhibited strong indications of *ascites*, such as loss of appetite, inactivity, extreme dryness of skin, diminution of the natural discharges of urine and co-tiveness. After these symptoms had continued for a short time, a slight protuberance was perceived in the hypogastrium, which progressed gradually, and kept increasing, until the whole abdomen become swelled and tense. She was now so far exhausted that the direct depletory system was out of the question, and other means were instituted for the purpose of evacuating the collected water. To answer this intention, calomel, with opium and squills, were administered in the usual doses, until the mouth became sore; but without the usual good, that

frequently results from this prescription. After giving the medicines already mentioned a fair trial, I thought it expedient to draw off the water, which was done in the usual way, and apparently with the happiest effects, for by resuming the former plan with the addition of nitre, I believed that she was cured. She, however, remained weak and emaciated as I have before stated, and in a short time afterwards contracted the dysentery, for which she took no medicine, and died on the fourth day of her last illness. After her death, I requested permission to examine the body, but the ignorance and prejudice of her friends, precluded the possibility of succeeding, so that I am consequently unable to say any thing of post-mortem appearances.

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**ART. II.—*On the Influence of Heat and Cold in the production and cure of disease.*—(Continued from page 55.)**

***Remediate agency of Heat and Cold.***—There is perhaps no disease assailing the human system, in which heat is a more indispensable remedy, than in cholera morbus. This disease, in its onset, is, we believe, invariably accompanied with a rapid recession of blood from the surface, extreme pallor, and remarkable coldness, especially of the extremities. The stomach, liver and intestines, become the centre of fluxion, toward which the circulating fluids seems to be powerfully impelled. Heat is most generally the predisposing cause of this affection, and sudden transitions from heat to cold, suppressing action on the surface, and inverting nervous and vascular excitement, are as uniformly the exciting causes. We have become thoroughly convinced of the importance of external heat in the treatment of this disease, by our own observation and experience. It is not only in itself a powerful agent, (the remedy which nature seems to indicate) with which to assail this shivering offspring of cold, but it is an indispensable adjuvant to all other remedies. Indeed,

we have rarely seen the symptoms of this malady yield to internal remedies until, by their means or by others, warmth had been restored to the surface and extremities. This is precisely what we should anticipate, because the absence of vital warmth and action from the surface, and its accumulation in the central organs, is the very essence of the disease. A case of this affection not long since fell under our observation which proved fatal. In this instance it was found impossible by any means to restore vital warmth to the surface. In another instance, an individual having been reduced extremely low by this disease, and the attending physicians, finding the usual remedies to be altogether inefficacious, (the usual modes of artificially warming the surface not being effectual) procured the warm skin of a recently-killed sheep, with which they enveloped the body. This proved singularly efficacious in re-animating the surface and equalizing action. The patient was promptly relieved by it. We cannot conceive of any thing more admirably calculated than this to effect the object proposed. The temperature is precisely such as would be most agreeable to the surface. It would be conveyed, too, through the medium of moisture which could not speedily evaporate, and thereby reduce the temperature. The fleshy side being applied to the skin, the woolly covering would serve to preserve its warmth for a great length of time. Besides, there is something, we know not what, in animal warmth which cherishes far more than artificial heat. The knowledge of the fact seems to be as old as the days of King David, but the rationale we cannot explain until we shall have learnt something more of the constitution of heat. It is certain that there are different modifications, even of animal heat, which are appreciable to our senses. In certain diseases, when the hand is applied to the surface, there seems to be something acrid in the heat which is given off from the body, creating a biting sensation—hence the *calor mordax*, &c. &c. of the older authors.

In the treatment of cholera morbus, while the usual internal remedies are in preparation, we lose no time in re-animating

the surface. We find it convenient to slip the patient down toward the foot of the bed, until the legs can be dropped over the foot-rail and plunged, nearly as high as the knees, in a deep bucket of warm water, into which a handful of salt has been thrown, and perhaps a spoonful of mustard. At the same time we apply cloths wrung out in hot water to the stomach, chest and abdomen. Often we also place billets of wood, which have been plunged into hot water and wrapt in cloths, all round the body of the patient. These means soliciting the fluids to the surface, and restoring the equality of nervous excitement, will certainly, in many cases, enable our internal remedies (opium, calomel, and diffusible stimulants,) to accomplish that which they might otherwise fail promptly to effect. In such cases the citadel of life is assailed by an impetuous enemy—the garrison is surprised and in danger of being cut off. It is true we may often foil the assailant by throwing succour into the fortress, but if we attack the enemy without, and create a diversion in favor of the vital powers, we shall most certainly achieve the victory. Such a course is as much stronger than the simple use of internal remedies, as double elective affinity is stronger than single.

Hysteria is another of those affections which are powerfully influenced by heat and cold. Almost every practitioner has seen a form of that disease, which at its onset, is marked by alarming and exceedingly distressing depression of the powers of life—the surface and extremities becoming cold and bloodless—the pulse almost entirely ceasing at the wrist, and the heart, lungs and great vessels being so overwhelmed by the accumulation of blood within, as to produce the utmost degree of oppression. There is then laboured breathing, deep sighing, or moaning, and palpitation of the heart. Here, it is true, we must immediately institute the treatment applicable to hysteria, but can we expect our patient to be relieved before there is produced a reflux of the fluids to the surface? Under such circumstances we proceed, with regard to external applications, precisely as in cholera, and we have seen such practice attended

with the happiest results. Recently we have treated a very extraordinary case of this kind, in which internal remedies (even the most powerful stimuli) were totally inefficacious, till warmth was excited on the surface. The patient subsequently had several similar paroxysms which her nurses were always able to subdue by the prompt employment of these conjoined means.

In the treatment of intermittent fever warmth is always, in the cold stage, an important palliative means, and is also often an important auxiliary in interrupting the paroxysms. Generally, the more brief we render the cold stage, by the employment of heat and other means, the less severe and protracted will be the subsequent stages. Hence most authors direct, in the cold stage, the employment of external heat. When intermittent fever has existed for a considerable length of time, and the ordinary means have been ineffectually employed, the judicious management of external warmth will be found greatly to increase the efficacy of our remedies. In such cases it is important to break the established habit of diseased action; consequently, when the hour of the expected chill approaches, we direct our patient to be placed in a warm bed—if he has, at the time, any sense of chillness, to have bottles of water applied to the feet, and perhaps around the body—we endeavour, indeed, to equalize as perfectly as possible, the excitement and heat of the body. By these means perspiration is ordinarily produced, but this we are to regard only as evidence of equal action. To aid in producing these results, we employ warm aromatic drinks. All this, however, must be accomplished without the employment of ardent stimuli, or of intense dry heat, lest we should hurry action too much, without equally diffusing it, in consequence of which, there will be danger of our producing local congestions. Moist heat is far preferable for the purpose of equalizing action and overcoming vascular obstructions, because it relaxes the cutaneous vessels, and by sympathy, probably influences the deeper capillaries in a similar manner.

When by the judicious employment of heat, the equality of circulation is preserved, the blood being no longer suffered to rush upon the deep-organs, overloading and oppressing them, the tonic medicines which we employ are always observed to exercise a more salutary influence. These, then, should be renewed in the interval, and we are persuaded that, when thus seconded by the equalizing influence of warmth, a less quantity of such medicines will produce the desired effect, and with far less danger of the occurrence of permanent congestions, indurations of viscera, &c. &c.

But external warmth is most imperiously demanded in that prostrating and often fatal form of intermittent, in which re-action takes place reluctantly, or not at all, and which often terminates in death without the occurrence of the hot stage. In such cases, internal stimuli will often alone be found to produce no effect whatever, unless actively seconded by external warmth. An epidemic of this character occurred during the last year in Annapolis and its vicinity, and in some of the lower counties of Maryland. Many patients were lost in the cold stage, without the slightest re-action having taken place. We have been informed by intelligent medical gentlemen, that in those cases, although occasionally all remedies were ineffectual, external warmth was found in those who survived, to be a most valuable and even indispensable means.

But it is not only when there is universal coldness and pallor of the surface and extremities, that heat is to be employed in the treatment of disease. In many affections, of absolutely an inflammatory character, there is often coldness and pallor of certain parts of the system, whilst others are hot, excited and engorged. In such cases, the important indication is to equalize excitement, and what can be more important in accomplishing this, than the employment of heat and cold, in such a manner as to equalize temperature? Thus, in certain affections of the head, accompanied with great determination of blood to that region, heat, and sense of throbbing, we often find the extremities to be cold and exanguious. It is the dictate of the plainest common sense, un-

der these circumstances, to apply cold to the head, and heat to the extremities. If we neglect either, we neglect half of our duty. Nothing can be more important than this effort to equalize excitement, when local inflammation has taken place in a feeble and exhausted constitution. In such cases, if we divert the blood from the engorged part, and restore it to those regions which it has for a time deserted, we produce the same effect on the local inflammation, that we should by abstracting blood from the body, and that too, not by weakening the powers of the system, but by absolutely increasing them, since the blood is retained in the body, restored to its proper channels, and the organs receive their accustomed stimulation and nutrition.

In certain febrile affections, the discriminating practitioner will often find occasion to employ local warmth, even when the general aspect and sensations of the patient would indicate a considerable degree of pyrexia. Often, when the face is flushed, the chest and abdomen hot, we shall discover that the knees, feet, ankles, wrists and hands, of the patient, are excessively cold. Now, in restoring the natural warmth and excitement of these parts, it is perfectly obvious, that we shall aid in reducing the high temperature of other parts. There are cases of typhous fever requiring the general application of cold to the surface, which, with great propriety, will admit of the simultaneous application of warmth to certain parts. Indeed, is there not in almost every form of disease, unequal excitement in the system; and is it not an almost universal indication to render action uniform—a circumstance absolutely essential to health? The physician then, should ever be ready to apply warm stupes with one hand, and ice with the other. Let us not, however, be understood to disparage other remedies; we merely claim a due consideration for the means of which we at present treat.

But warmth is, in some few instances, applicable as a remedy, even where there appears to be a morbid increase of heat in a part. This we have learned empirically, if we cannot explain it physiologically. In certain inflammations of the

joints, we very well know that, when cold applications are often ineffectual in assuaging pain and allaying constitutional disturbance, these desirable ends are promptly accomplished by the employment of warm fomentations. Mr. Brodie informs us that relief may be expected from the application of warm stupes in inflammations of the joints, when the integuments are observed to be tense over the inflamed part. He supposes that ease is rendered by the relaxation, and relief of painful distension which exists. But we are inclined to think that the seat of pain is beyond the reach of any such influence from warmth and moisture. The effect must be one which is exercised through the medium of the nerves upon the deep vessels of the part. We have seen painful inflammation of the female breast, where there can not be any great tension of the integuments, relieved by the same means; also, chronic inflammations of the eyes. It will, we believe, generally be found, that the cases in which warmth is thus beneficial, are those which have existed for some time, and which have assumed an atonic character; for we by no means regard inflammation as being necessarily associated with increased or diminished action. It is undoubtedly an altered, and irregular action; but to restore the parts to soundness it is necessary to render the degree of action as nearly natural as possible. Hence many local inflammations are assuaged by cold applications, and some by warm.

But warmth, as a local application, is more especially applicable to local irritation, or that morbid excitation of the nerves of a part which is about to terminate in inflammation. Heat, especially when associated with moisture, as in fomentations and poultices, exercises a remarkably soothing influence upon the nerves. It relaxes the tissues of the part, and relieves the organs from painful tension, and probably exercises, also, a more direct influence on the nerves. In contused, lacerated, and gunshot wounds, the sensibility of the nerves is deadened; there takes place a suspension of their action, analogous to the suspension of the function of the blood-vessels in a chill. In a

short time, re-action will take place, and a high degree of irritation, indicated by pain, will result. It is important to cut short this period of torpor in the nerves; for, in proportion to the length of its continuance, will, for the most part, be the subsequent disturbance. Warmth and moisture accomplish this in the happiest manner. Hence the beneficial influence of poultices and fomentations after such injuries. After protracted surgical operations, also, when the wounded parts have been for a considerable time exposed to the contact of the atmosphere, to an unusual temperature, and to the contact of instruments, such applications greatly palliate the evil effects which are liable to result. When the lips of the wound have been brought as nicely in opposition as possible, we are accustomed, under such circumstances, to envelope the whole in a warm, moist poultice. Such an application will by no means interfere with union by the first intention, but rather promote it. We have heard it remarked by the late Professor Smith, of Yale college, than whom, perhaps, but few individuals of our country have been more extensively engaged in operative surgery, that after severe operations, his patients generally did better when the weather was warm. From this he drew two precepts: first, never to decline operating (in the climate of New England) on account of the warmth of the weather; and second, always to dress warmly all wounds inflicted by the knife. We do not mean that he always applied artificial warmth, but that he enveloped the part in soft dressings.

In the treatment of burns, warmth is undoubtedly often a remedy of indispensable utility. We, however, by no means assent to its universal employment, as recommended by some, or to the employment of an irritating degree of heat. Warmth is proper immediately after the removal of the cause of injury, for the purpose of preventing the abrupt transition from heat to cold; for it is often the transition which inflicts the greater mischief. The application of cold water, or pounded ice to a burned part has always appeared to us absurd in theory, and has

been observed to be injurious in practice. The first morbid state of a burned part is irritation. Often this is so intense that the sensibilities of the part are overwhelmed with it, and reaction does not immediately take place. The seat of the burn then often becomes cold and lifeless. This is especially apt to be the case, when cold applications have been injudiciously employed. Warmth is then an indispensable remedy, and it may be conjoined with those articles which rouse the vital sensibilities of the part.

*Modes of employing heat.*—To some of the convenient modes of applying heat to the surface we have already had occasion to allude, in the course of the foregoing remarks: we shall not, therefore, dwell upon them at length. The most perfect medium through which warmth can be imparted to the external surface of the body is water, or the vapour of water. This fluid is a vehicle which applies itself to the whole surface of the body, with the most perfect contact—it readily imparts its heat, also, in consequence, not of its being a good conductor, but because of the free motion of its particles. The temperature of water is also managed with the greatest ease. The effect of heat thus applied is aided by the relaxing influence of moisture. For these reasons, when there is general pallor and coldness of the surface, with congestion of the deep organs, we prefer to apply warmth through the medium of the warm bath. But sometimes, even in such cases, this use of warm water will be inconvenient, or injurious, in consequence of the extreme exhaustion of the patient. At other times the necessary vessels may not be obtained promptly enough to meet the emergency of the case. When the patient is so feeble as to be moved with danger, or when motion is painful and difficult, no more effectual method can be adopted than to apply to various parts of the body, and especially the extremities, stomach, chest, &c. cloths wrung out in warm water—or, what is perhaps still better, billets of wood dipped in boiling water and wrapped in cloths. These absorb a great deal of moisture, retain their heat for a long time, and ra-

pidly give out vapour. Heated bricks, which have been quenched in water, answer a similar purpose. When wetted cloths alone are used, we must be extremely careful that we do not suffer the dress or bed covering to become wet, or the wetted cloths to become cool, lest, from the evaporation which will follow, a counter-effect should be produced. It was a very favourite practice in New England, in the treatment of spotted fever, to employ boughs of hemlock, immersed for a time in boiling water, and then wrapped in cloths and placed by the body of the patient. These not only gave out aqueous vapour, but an essential oil which the plant contains in great quantity, and which is highly stimulating. When a soothing anodyne influence is desired, a decoction of poppy-heads, of hops, or other narcotic, is employed in a similar manner.

The mode of applying heat is also proper when, in consequence of the inequality of temperature in various parts, the general application of heat is deemed inadmissible. They can often be used, indeed, when it is proper to apply cold to other parts of the body. There is still another advantage, also, in our being able to continue warm stupes to the surface for a greater length of time than it is prudent to use the warm bath, and in our being able to repeat them with facility. The warm bath is observed to produce far more exhaustion than any other mode of applying warmth. This is not owing merely to the fatigue which the patient necessarily undergoes, but, I am inclined to think, in part, to the pressure exercised by the water on the surface of the body. This pressure must necessarily render respiration more difficult, and the exercise of it more fatiguing. Persons in pleasure-bathing are far less capable of muscular exertion than under other circumstances, and they are observed (we have experienced it ourselves) to become soon weary, or to faint from exertion too long continued. This pressure, too, must render the capillary circulation more difficult. The power of the heart is nicely adjusted to the pressure of the atmosphere. If that pressure be diminished, as in ascending high mountains, or, partially, by the application of cupping-

glasses to the surface, the capillaries are no longer so sustained as to resist the action of the heart; the blood rushes into them and they become painfully engorged. Precisely the reverse takes place when the pressure of the atmosphere is increased by immersing the body of an individual in water. The capillaries are then subjected to a pressure greater than natural—the blood is forced from them back upon the heart, which organ is then compelled to an unwonted exertion, in order to relieve itself of the load. To effect the circulation, then, the heart must necessarily labour more than under ordinary circumstances. These phenomena occur in a remarkable manner when the body is deeply immersed in water in the diving bell. We are informed that there then occurs a high degree of oppression in the chest; the surface becomes bloodless, and individuals thus situated are not capable of long continued exertion. Now, in ordinary immersion of the body, just beneath the surface, it is true that the pressure is not very great, but if any one will take the trouble to estimate the amount, he will learn that the additional pressure, to which the body is subjected, is about one fortieth of the whole pressure of the atmosphere. The pressure, indeed, is thus increased in the same degree that it is decreased by ascending a moderately high mountain. Now this increase of pressure on the surface of the body is certainly a strong objection to the employment of immersion, when the patient is feeble, and especially when there exists already a congestion of the deep organs, and an oppressed condition of the heart. It is under these circumstances, that we should resort to steam bathing. The vapour of water applies itself as closely, and as generally, to the surface of the body as water does—it requires little or no exertion on the part of the patient, and, instead of increasing the pressure of the incumbent atmosphere, it slightly diminishes it. It is for these reasons, undoubtedly, that steam bathing is observed to be far less productive of exhaustion than immersion, although continued for a much longer time.

The modes of employing the steam bath are various, but ought always to be simple, otherwise they will certainly not be generally employed. Ordinary ingenuity will accomplish the object with great ease. Indeed, it is effected in part by means which we have already named, especially the billets of wood, hemlock boughs, bricks, &c. &c. A method practised in New England, during the prevalence of spotted fever, was to place over the body of the patient, as he lay in bed, a box of boards, open on the under side to admit the body—the edges of the open side to rest on the bed. A vessel of boiling water was then placed near the bed (commonly a tea-kettle) and the nose of it being provided with a tube of some kind, the vapour was conducted under the box until a sufficient degree of heat was produced. We have practised the same thing in a manner even more simple and less annoying to the patient than this, and which will be found particularly useful when the lungs are concerned in the affection, and expectoration is difficult. It consists in placing over the patient a slight frame, and spreading over it sheets or blankets, in such a manner as to form a canopy. Within this, and on each side of the bed, may be placed a bucket of hot water, into which heated bricks should be thrown, which will immediately produce a cloud of vapour, completely enveloping the patient. The bed clothing should be so far removed as to give it access to the body. We have practised this method with the happiest effects in the case of a lady extremely low with inflammation of the lungs. Expectoration was almost impossible, in consequence of the extreme soreness of the lungs, and the toughness of the sputa. Copious expectoration resulted from the free inhalation of vapour, and the engorgement of the lungs seemed to be relieved by the derivation which took place to the surface.

*Remediate influence of cold.*—It is not our design to dwell so much at length upon the employment of cold in the treatment of disease, because, in this respect, we believe it is less important as a remedy, and because, so far as it is useful, we believe its virtues are better appreciated. We have shown that cold is

a far more frequent cause of disease than heat, and that heat is often the legitimate remedy of those diseases which arise from cold. But cold being the remedy which nature indicates for those affections arising from heat, cannot of course so frequently be called into requisition. It is to be borne in mind, however, that cold is often to be employed in the treatment of those diseases which arises from cold itself, and in which excitement has taken place from re-action. Cold, too, is sometimes to be employed in cases where there is feeble action, or torpor of the system, for the purpose of producing re-action, and actually stimulating the body. We dash cold water upon fainting individuals—we throw it upon new-born children, that seem still-born, and we sometimes employ it where there is general torpor of the system in fevers, for the purpose of indirectly rousing the powers of life.

Since the days of Sydenham, and especially since Currie wrote and experimented on fevers, there has probably been less prejudice against the employment of cold, than against that of heat. There is a tide in the fashion of medicine, as well as “in the affairs of men.” The abuse of warmth, in the treatment of disease, before the time of Sydenham, brought upon it a reproach which it has not even now entirely cast off. Cool air, cool water to the surface, and cool drinks, are, at present, more in favour.

The writers on the employment of cold in the treatment of disease are so numerous, and so recent, that it would be a supererogatory affair for us to dwell upon it. We must refer for more full information on this subject to Currie, Rush, Smith, Armstrong, &c. &c. We will merely remark, that cold is for the most part applicable to the general surface, when the whole surface manifests a temperature above the natural standard—provided the disease be one which is not liable to metastasis—and provided there exist no considerable congestion of any deep seated organ. The most remarkable diseases which demand its employment, are typhous fever and scarlatina. Cold is also sometimes applicable to the surface, even when it is far

below the natural standard of temperature, for the purpose of producing re-action. We have known the cold shower-bath to be used with very striking beneficial effects, in protracted typhus, the skin being, over the surface generally, far below the natural degree of heat—dry, harsh, and pallid, the pulse feeble and contracted—indeed, a general torpor of the whole system prevailing. A patient in that condition we have known to be taken from bed, placed on a rug, and to have three or four buckets of cold water dashed over his body. He was then promptly wrapped in warm blankets. The cold aspersion appeared to give a powerful impulse to the nervous system, the dormant powers were roused to re-action, the pulse became more vigorous, breathing more deep and free, the surface warm, and finally moist. This we have known to occur in more instances than one. The practice we learned from Drs. Powell and Pomeroy, of Burlington, in Vermont, and have been informed that they have practised it in many instances with success. It is a remedy, however, which should be employed with the nicest discrimination, lest there not being sufficient vital power for re-action, it should prove suddenly fatal.

When cold water is employed for the purpose of reducing temperature, as in the period of febrile excitement, we are inclined to think that it ought not to be copiously dashed cold upon the body, lest it should excite too much re-action. We prefer sponging the body frequently with tepid water, and to suffer the abstraction of heat by evaporation. This will be less apt to disturb the balance of action.

Cold water may often be applied with advantage to certain parts of the surface which are above the natural temperature, while, at the same time, other parts are morbidly cold, and require the application of warmth. Remarks on this subject may be found in an essay on typhus, by the late Professor Smith of Yale College.

The employment of cold lotions in inflammations is so familiar an expedient that it is unnecessary for us to remark upon it.

## Adveraria.

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### BALTIMORE INFIRMARY REPORTS.

**ART. I.**—*Singular Case of Necrosis, in which a part of the thigh bone having been destroyed, the continuity of parts was restored by Ossification of the Muscles.*

John Lewis, a coloured boy, eleven years of age, small of stature, but hitherto healthy and active, was admitted into the Baltimore Infirmary, August 23d, 1829, for the treatment of disease of the thigh. The member was found to be tumid—something hotter than natural—soft, and apparently fluctuating in some places, and in others, especially near the knee, feeling as if the bone were irregularly knobbed. The general health was less impaired than might have been expected. The tongue was white, pulse a little quicker and more frequent than natural, Appetite rather inconstant, but rarely altogether absent. The skin was dry and harsh, but occasionally there occurred, at night, colliquative sweating.

After careful examination I became perfectly satisfied that pus was present in considerable quantity, and that the bone was undoubtedly extensively necrosed. I therefore immediately made an incision into the outer part of the thigh, above the external trochanter. Unfortunately, although the fluctuation seemed here to be most distinct, this incision did not freely lay open the abscess, and there escaped but an inconsiderable quantity of pus. The instrument undoubtedly divided that portion of the vastus externus which arises from the external division of the linea

*aspera*, and which forms a kind of partition between the anterior and posterior regions of the thigh. Two or three days after this, however, there took place a spontaneous discharge of fetid pus from between the ham-strings, near the knee. This opening having been dilated, the discharge became very copious, seeming to consist of crude pus largely diluted with serous fluid, and containing flakes of lymph, precisely of the character that is discharged from ordinary scrofulous abscesses, except that it was unusually fetid. Through this opening I introduced a probe obliquely upward, and immediately encountered the denuded, rough surface of dead bone. But this being not directly accessible from the spontaneous opening, I immediately dilated the incision which I had previously made, and examined the diseased organ with my finger. I found that a prodigious abscess had existed immediately around the bone—that I was able with my finger to touch every part of the circumference of the bone at that place, and that the muscles and tendons were completely detached. The shaft of the bone was in this condition to the extent of five inches. The lower extremity of the dead portion was very near the junction of the shaft and epiphysis. The periosteum appeared to be entirely destroyed. Above, shooting from the lower extremity of the upper portion of healthy bone, were two or three irregular spiculæ of bone, by which nature seemed to be endeavouring to restore the continuity of healthy bone, and to enclose the sequestra. One of these projecting on the inside of the thigh felt like an exostosis. The sequestra was, however, no where detached from the living bone.

Such being the condition of the parts, I determined to wait the operations of nature; indeed, it appeared to me that no other course could at that time be prudently pursued. I was anxious, also, to observe, from time to time, the recuperative process which might be instituted. The patient, therefore, was put upon a gentle tonic plan of treatment, for the purpose of obviating the colliquative discharges which seemed to be in some degree wasting his strength. He was kept constantly in the horizontal

posture, the limb being sustained in an easy attitude. In this condition he remained till the last of October. His general health was, in the mean time, not a little impaired. His tongue was white and occasionally dry—his appetite somewhat defective. He often had copious night sweats, and not unfrequently was annoyed with hectic diarrhea, attended with griping pains. This could only be relieved by the free use of oak bark enemata. Opium had little or no effect in arresting it.

At the end of this time, I again presented the patient before the attending class—dilated the opening which I had first made—introduced my finger into the cavity, and carefully examined the bone. It was found to be in the same state as before, except that it was more rough and decayed. I exercised some degree of force upon it with a lever, but found that it was still firmly attached at either extremity. There was still a large space between the bone and the surrounding parts, and no new bone had been formed in contact with the old. This cavity was filled with matter when means had not been recently employed to expel it, and, when emptied of it, the walls of the abscess were too rigid to collapse, but remained open and drew in air. On carefully examining the walls of the cavity, with one finger on the inside and another without, I discovered that they were formed of the internal layers of those muscles which arise from, and envelop the thigh bone. I discovered, too, that the most deeply seated fasciculi were evidently about being converted into bone—bony spiculæ were distinctly felt in many parts. The patient, in consequence of this disorganization of the muscles, had completely lost the power of moving the leg. I requested many of the medical pupils who were present, to examine the limb with care. Several gentlemen felt it, both within and without, and became satisfied of the condition of the parts.

I then remanded the patient to his bed, and directed that the same plan of treatment should be continued. I was careful that the opening which I had made should be preserved by introducing firm tents. My expectation was, that nature would soon

effect the disengagement of the dead bone at its extremities from the living, and that the shell, then forming in the muscles, would restore the continuity of sound parts. The patient was suffered to remain in this condition (being occasionally examined,) till December. I then became alarmed for the safety of my patient, on account of the very copious and offensive discharge which continued to be poured from the limb. The whole ward in which he lay was filled with the stench, and the dressers had extreme difficulty in the discharge of their duties. The hectic symptoms were more decided, and he appeared to be evidently losing ground. The shaft of dead bone seemed, indeed, to be operating as an immense foreign body to keep up irritation in the part. Amputation was thought of, and in this state of things would, no doubt, have been justifiable.

I determined, however, although the bone was still firm, to attempt its removal—thus to withdraw the source of local irritation, and to place the limb in the condition of a *fractured thigh*—trusting to the process which was then going on in the muscles to re-establish the continuity of the bone. I had so far succeeded in dilating the incision which I had previously made, that the bone, to a considerable extent, was easily accessible. Before applying an instrument to the bone, however, I dilated this opening upward, where the dead portion of the shaft extended beyond the reach of my finger. Then, with the chisel, Hey's-saw, bone-nippers, levator and strong forceps, I succeeded in breaking up the dead bone. As soon as I had cut it entirely across, in one place, I discovered that the thigh was in the condition of a fractured member, and that a considerable degree of motion took place at the point of fracture.

Having removed nearly all the dead portion of bone, (to the extent of about four or five inches of the shaft,) I extended the limb, and, as the most convenient for this object, applied the apparatus of Hagedorn for the purpose of gently extending the thigh, and preserving its rectitude. The patient was placed on his back, upon a firm mattress, and subjected to such treatment as the constitutional symptoms seemed to require. For a time

the discharge was as copious as before, and equally as offensive, but, in the course of two weeks, it began sensibly to diminish, as did also the hectic symptoms which appeared to have arisen from so exhausting a discharge. The cavity formed by the removal of the bone began to fill with granulations, and, from time to time, the limb appeared to become more and more rigid. At last, at the end of about eight weeks from the time of the operation, the limb was found on examination to have perfectly healed, there remaining not even the smallest fistulous orifice for the discharge of matter. The limb felt firm and sound, and had become so rigid that he could raise it without assistance vertically from the bed. The splints were then thrown aside, and, at the end of a few days from this time, he was able to leave his bed and to hobble upon crutches. At first he appeared to have no muscular command over the leg whatever. But, by constant efforts the leg appeared, at length, to become slightly moveable and the patella began to play. On examining the limb this day, March 27, 1830, I discover that he is able to bear his weight upon the member, and even to walk a little, without the aid of a crutch. The limb is much larger in diameter than natural. In place of the bone there seems to be a large mass of callus. The knee, leg, and foot, have their natural attitude—the patella plays with some freedom—he can slightly flex and extend his leg by the effort of the muscles. The limb is, however, nearly an inch shorter than the other. This circumstance arose from the difficulty of maintaining permanent extension in his feeble state (though, by the way, I have very little confidence in the utility of permanent extension in any case. No part of the body, not even the soles of the feet, can bear continued pressure, for a considerable time, without injury.) The condition of the lad is, therefore, such that I have no hesitation that, as regards its utility, the limb will, in a short time, be almost perfect.

*Lithotomy.*

The operation of lithotomy was performed in the Baltimore Infirmary, the sixteenth ultimo, on the person of John Morris, æt. 5. The patient had been afflicted for four years, the disease appearing to have originated in a deranged state of the digestive organs. I performed the operation in the method practised at present by some of the French and English surgeons. I employed a staff grooved neither on its dorsum, nor on its side, (the method of Mr. C. Bell,) but obliquely, and between these two aspects of the instrument. With this form of the instrument I find that there is less difficulty in striking the groove, and the knife is conducted with more precision and with less danger to the rectum. The cutting instrument employed was a straight narrow bistoury, which I struck directly into the groove of the staff, without making first an external incision. This incision was chiefly made as the knife was withdrawn. The length of time in which an important operation is accomplished is certainly not a proper test of its merit, but it evidences the facility which attends different modes of operating. The stone (weighing between two and three drachms,) was in this case removed in one minute and ten seconds from the time that the bistoury was taken in hand. The urine has now (ten days after the operation,) resumed its natural channel, the patient is well, dressed and playing about the house.

N. R. SMITH,

*One of the Surgeons to the Baltimore Infirmary.*

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ARTICLE II.

In regard to Doct. Hughey's case of extirpation of the uterus, we would take the liberty to remark, that the operation does great credit to that enterprising young surgeon. That the patient ultimately died of abdominal disease, detracts nothing from

the merit of the achievement. The practicability of thus removing the organ was completely demonstrated, for the patient perfectly recovered from the effects of the operation.

An interesting case of excision of the cervix uteri is related in the last number of the American Medical Journal, by Doctor Gilliam, as having been performed by Doct. Strachan, of Virginia. He states this case to have been the first in which this operation has been successfully accomplished in this country. Doctor Hughey's case, having never been published, was of course unknown to that gentleman, and must claim priority in regard to date. It is also more important in its results, inasmuch as the whole organ was removed.—EDITOR.

## Analytical Reviews.

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SELECTED FROM THE MEDICO-CHIRURGICAL REVIEW.

ART. I.—*Observations on Local Diseases, termed Malignant.*

By Benjamin Travers, F. R. S. &c. Part II.

[CONTINUED FROM PAGE 70, No. II.]

The wound of the operation, (supposing such performed,) heals kindly, but after a time an indurated tumour steals into notice at the angle of the cicatrix, or near it, and again marches on like the original growth. Mr. T. observes, that in no one stage is there any analogy to scrofulous action, a sentiment to which we must all respond. A chronic abscess of the breast has been frequently mistaken for scirrhus, and not long ago we saw a breast removed in consequence. It occasionally forms between the gland and the pectoral muscle, "when it lifts the gland, and may be felt obscurely at its edge."

"In scirrhus it is not suppuration which, as in scrofulous and other tumours, brings the disease to the surface, nor does the external skin ulcerate, until after the scirrhus. Its first and proper action is within itself. Encompassed by a dense wall, the centre breaks up by ulceration, constituting the state of occult cancer. Indeed the scirrhus is seldom removed so early as to be found with its nucleus unbroken. A sudden and extensive gangrene has been known to eliminate the disease completely, and upon this principle the cautery, arsenic, and other corrosives, are sometimes successfully employed by cancer curers. Mr. Cline had a patient in St. Thomas's Hospital many years ago, in whom the sloughing process went on spontaneously under a linseed meal poultice, to such extent, that the wound afterwards healed soundly. I have seen more than one case in which extensive cicatrices of ulcers existed with much puckering and stretching of the skin of the chest, and no vestige of the breast remained. In one of these, the patient, a lady

residing in Berkshire, resisted the pressing advice of a consultation of London surgeons to allow of the extirpation of the tumour many years since. She has been in the constant habit of taking the medicine then prescribed, the extract of hemlock, almost *ad libitum*, with which she supplies herself regularly from Apothecaries' Hall. She is still a stout, healthy-looking person, as formerly, and attributes her cure to the medicine." 214.

Mr. Travers alludes to the occasionally dormant condition of the scirrhus tumour, even to the close of the patient's life, and cites a case of his own in illustration. The occasional, though certainly too rare, removal of the scirrhus by sloughing, and its remaining through a period of many years inoffensive to the system, are considered by our author as "additionally conclusive as to the original strictly local character of the disease." Sometimes the ulcerative action, instead of excavating the breast, creeps upon the surface, and converts the entire front or side of the chest into a warty or tubercular ulcer, discharging profusely thin and acrid matter, whilst the subjacent tumour is large, hard, and immoveably fixed. In these cases the sufferings are great, the skin is "charged to saturation with the poison, a pimple, mole, or leech-bite being often converted into a tubercle, and not unfrequently the opposite breast becomes affected, and an inflamed absorbent or a chain of small tubercles extends across the sternum from one to the other." In other cases there are oblong folds and furrows of the skin, looking extremely like cicatrices, and depending, in our author's opinion, "on an interstitial, instead of ulcerative absorption, and partial but firm lines of adhesion between the skin and the pectoral muscle." The permanent obstruction or obliteration of the absorbent<sup>m</sup>, together with the disease of the lymphatic glands, gives occasion to that enormous œdematous swelling of the inferior parts, which is among the last symptoms of this dreadful disease.

*Medullary Cancer.*—The differences between this and "Scirrhus Cancer," are so briefly and well pointed out by Mr. Travers, that we cannot do better than transcribe them.

"This species, also a morbid growth, differs from the scirrhus cancer, 1st. In its property of affecting any or all textures

without exception, skin, bone, muscle, fascia, tendon, ligament, nerve, membrane and gland of each description, blood-vessel, and all the viscera and organs of sense.

"2d. In travelling as much by the blood-vessels as the absorbents of the part, and therefore not affecting contiguous parts only, but remote districts of the body; structures altogether dissimilar, and often, many at the same time.

"3d. In external characters—which, however modified by structure, situation, and connection of parts, are the reverse of those of scirrhus, the tumour having a degree of elastic softness which conveys a sensation of fluidity, a uniform roundness, and a volume far exceeding that of scirrhus, and, in short, more resembling a deep collection of matter.

"4th. In internal characters—being uniformly lardaceous on section, or pulpy, or semi-fluid, and intimately blended with original textures, i. e. deposited in their interstices and proper cellular tissue. By its seat it is modified in consistence, being in bone of so much firmness as to be osteo-sarcomatous in appearance; also in colour, as in the eye and some other parts, hence the term 'melanoides;' and in the limbs where it reaches a formidable magnitude, being mixed up with the coagula of blood which has escaped from the veins destroyed by it, 'hematodes.' The extreme states of a fresh and decomposed brain present its different degrees of consistence; and its colour upon section is either opaque white or black, or a mixture of the two, a mottled grey and brown, or cineritious.

"5th. It differs last, but not least, from the scirrhus species, in being the disease of early rather than advanced life, and from the first a truly malignant and therefore a constitutional disease." 217.

It cannot fail to be remarked, that many theoretical notions are mixed up with the enumeration of purely structural distinctions in the foregoing passage. Take, for instance, the second head, where the medullary cancer is said to differ from the scirrhus, in "travelling as much by the blood-vessels as the absorbents of the part, and *therefore*, not effecting contiguous parts only, but remote districts of the body, &c." It is obvious that this is mere speculation, and neither supported by, nor capable of, proof. The explanation, too, of the occasional *melanoid* colour and *hematoid* consistence, by the *site* of the tumour, will not bear investigation.

Like scirrhus, the medullary cancer is unconnected with a suppurative process, but its characteristic action is first adhesive, then ulcerative, and seldom associated with gangrene. At the same time, we would observe, that the medullary tumour occasionally sloughs, and that to a considerable extent, a process which, though not identical with mortification, is yet allied to it. Mr. Travers remarks, that he has never known a patient survive this disease, after its removal by the knife, for a longer period than four years, and instances several cases illustrative of the observation. We can bear our testimony to the comparatively rapid return of this disease after the operation, and no doubt the voice of the profession will echo our author's melancholy prognosis.

The scirrhous cancer also develops itself at times, in remote organs, after the removal, and without the return of the external tumour, but by no means so often as the medullary disease. When a scirrhous tumour has passed into ulceration, the operation is seldom successful.

"There is, however, a great and obvious difference in the sympathy of the constitution of the scirrhus in different individuals. I should say there were two classes of cases, one in which the constitution might either be supposed to labour with the *materies morbi* before its local manifestation, or which, by the general and simultaneous failing of the functions of health, appears to invite or to be incapable of resisting the assault. As when mental disquietude, bodily fatigue, impaired digestive power, wasting and muscular flaccidity, sallow and haggard countenance, prurient affections, or erythematous inflammations of the skin, precede the accidental discovery of a small lump in the breast. In precisely such a case I was consulted, within six weeks from the discovery, by a widow lady of 57 years, who had suffered from a domestic affliction severely a year before, and upon immediate conference with Mr. Cline, the opinion given was decidedly adverse to the operation, although the local circumstances were yet as favourable as could be conceived. She died within two years, the disease running through all its stages.

"In the other and more frequent case, the actual enjoyment of health appears not to be incompatible with the slow progress of the scirrhus even for years, of which the pain or rather uneasiness is so inconsiderable as scarcely to draw attention to it.

Somewhat suddenly it becomes more uneasy from increase of size and weight, a short acute darting pain with a flush of heat is experienced at lessening intervals, and although the health is not very noticeably disturbed before the skin inflames and threatens, or begins to ulcerate, yet, in despite of strong animal spirits, there are obscurer indications to the medical observer—in the sallow complexion and lack lustre-eye, the languor and frequent head-ache, defective appetite and rest, with transient heats and wandering pains in different parts of the body, and especially in the loss of volume and firmness in the muscular flesh—that the poison is at work and circulating with every pulse.

“Where the constitution is affected as in the case first described, it is at least predisposed to be sooner irritated by any local malady, and to favour, rather than otherwise, those changes by which the deleterious qualities of morbid secretions are evolved, and the more rapid career of the disease to its termination is thus explained; where, on the other hand, the constitution is healthy and even vigorous at the time of the formation, its power of resistance both to the local irritation and to the changes which precede and promote the admission and action of the poison, is in proportion great, and the progress of the disease tardy.” 221.

Mr. Travers is of opinion, that “scirrhus becomes a constitutional disease” long before any external ulceration takes place, and instances the early affection of the contiguous absorbent glands, as proof of the fact. It is certain that this glandular contamination materially lessens the chance of success from an operation; but it is equally certain, that comparatively few cases are the subject of consultation in which it is not more or less apparent. Mr. T. does not deem it, *per se*, a bar to the operation, for “the degree of induration and the state, especially the freedom from adhesions, of the principal tumour,” must likewise be thrown into the scale. Mr. Travers does not deny that success has sometimes followed the operation when the cancer was already open, but still very judiciously throws these rare exceptions overboard, in deciding on the vital principle in the treatment of the scirrhus—its earliest possible removal.

*Actual Origin and Nature of Cancer.*—Mr. Travers observes, and probably with justice, that the *formation* and circulation of a poison in the blood, is the only rational mode of ex-

plaining the simultaneous or successive appearance of the same malignant disease in remote parts of the same individual. If this be granted, it follows, of course, that exclusively *local* contamination argues the non-constitutional origin; and diffused contamination the constitutional origin, of the disease. All this is fair enough, and consistent with sound reasoning; but the practical question resolves itself from a logical or metaphysical subtlety into plain matter of fact—is scirrhus in one or in the other of these classes; is it a constitutional disease or is it not? Mr. Travers, we imagine, sees the great difficulty of answering the question decidedly, but the following passage contains the pith of his opinion. The replies, we must confess, are somewhat in the ambiguous tone of the Pythia of old, but still they evidently shadow forth our author's idea upon the subject.

"Nor is it consistent with ordinary observation that the poison acts upon the system during the integrity of the tubercle, since persons generally recover, and finally, in whom the disease is freely removed in this early stage. On the contrary, if the tubercle be softened and undergoing ulceration, *i. e.* absorption, the disease recurs, however freely the part be removed, in the majority of cases; although, perhaps, a few years' extension of the term of life may be gained by the operation. The formation of the poison therefore is concomitant not with the adhesive, but the ulcerative inflammation; and it is fair I think to infer that the matter of the poison is generated not by the action which forms the tubercle, but by the series of actions instituted to destroy and remove it. But it is probable that the vessels which deposited the tubercle are the parents of those which nourish it, and from which, in the ulcerative stage of inflammation, the morbid secretion is derived." 225.

We before observed that, in medical reasoning, theories, however brilliant, and subtleties, however fine, must be tried, after all, by the common experience of common men. Is it, then, the fact that persons *generally* and *finally* recover, in whom the disease is freely removed in its early stage? This is a question not to be decided by rules of logic nor laws of ratiocination, but by experience, and by nothing else. Mr. Travers of course, believes in the correctness of his statement, and certainly he must have seen a great deal of the disease. Others, however,

of equal experience with himself, have been constrained to draw a more gloomy picture of the powers of the operation whenever had recourse to. Mr. Travers imagines that the system is not contaminated till the scirrhus tumour begins to ulcerate in its centre, or that the matter of the poison is *generated*, not by the action which forms the tubercle, but by the series of actions instituted to destroy and remove it. This is ingenious, but then we must step over a difficulty to get at it—*what formed the original scirrhus tumour?* The “constitutional contamination” from ulcerating scirrhus, is nothing more than the deposition of that scirrhus tubercle in other parts, *in its primitive, and, according to Mr. Travers, its non-malignant form.* See in what confusion we become entangled by acceding to Mr. Travers’ hypothesis! The tubercle is not malignant till it ulcerates—the constitution is then affected, and forms, what? malignant, or, in other words, ulcerating tubercles? No—tubercles in their adhesive and healthy stage. Thus, the effect and the test of *malignancy* is the greater or less universality of depositions *not* malignant.

Those who deny the malignant character of scirrhus from first to last, must necessarily get into such awkward scrapes as the above. It is safest and wisest to allow that scirrhus is essentially a malignant disease, keeping our eyes open, at the same time, to the fact of its occasional, though far from frequent, cure by operation. Before closing this part of his paper, Mr. Travers alludes again to the “medullary cancer,” and hints at a connexion between it and scrofula. We must now, however, pass to the second portion of the Essay, which treats of the various situations in which these malignant diseases may appear. This promises to be the most valuable, because the most practical division of the subject, and we hail a general and complete history of the malignant tumours that attack the various compartments of the human frame, as an inestimable boon to the profession. Mr. Travers proposes to treat of these diseases in the following order:—1st. Of the malignant diseases of the face and head. 2d. Of the malignant diseases of the external

conglomerate glands, viz: the salivary, mammary, and testicle. 3d. Of the malignant diseases of the organs of generation in both sexes. 4th. Of the malignant diseases of the trunk, including the viscera; and the extremities. Under each division, he will shortly notice the diseases liable or likely to be confounded with these, their more obvious modifications by varieties of texture, and, lastly, observations on their medical and surgical management, will form the conclusion of the memoir. The plan is a noble one, but too extensive, we fear, to be carried into effect by any one man in the way which it deserves. The execution would embrace one third of the practice of surgery, and no inconsiderable share of that of physick. We wish our author well in his arduous task, of cleansing this Augean stable of the filth and rubbish that the vague observations and erroneous notions of more than 20 centuries have amassed and may perpetuate.

*Malignant Diseases of the Head and Face.* 1. *Cancer of the Face.*—"The Malignant ulcer of the integument of the face commonly begins in a small warty tubercle, hard, irritable, rather than painful, sometimes discoloured, so as to look like a dirt-spot. It is usually seated upon the side of the face, upon or between the zygoma and base of the lower jaw. It is also met with, though rarely, on the forehead, lacrymal, and infra-orbital fossa, and sometimes the chin. In the first stage it is slow—noticed even for years before it arouses the alarms of the patient. This is especially the case when obscured by the whisker, or situated in parts not obnoxious to the razor. When fretted by frequent handling, or wounded, or irritated by caustic and stimulant applications, it inflames superficially and becomes exulcerated, discharging a thin matter and scabbing by turns. It next acquires a broader base of induration, has a livid circumference, and an even and glossy surface of an unhealthy brightness. There is an occasional sense of heat and soreness, but not amounting to pain. The health continues unaltered. The third stage into which the disease shifts, is that of extensive ulceration both in breadth and depth; the ulcer having an irregular margin and surface, and a profuse suppurative discharge of a peculiar odour. Exuberant fungous granulations are intersected by deep interstices or hollows, in which are lodged ash-coloured sloughs of the exposed fascia, muscles, vessels or nerves of the part. The countenance becomes dis-

figured by the encroachment of the ulcer upon contiguous parts and by partial paralysis. The pain is now frequent, if not constant, burning and shooting. The complexion, strength, and flesh undergo a gradual but sensible change—the mind becomes irritable and anxious—appetite and natural sleep fail, the pulse is rapid and small, and spontaneous bleedings take place at intervals. Ultimately death ensues from exhaustion owing to interrupted deglutition and continual irritation; and for the most part it is accelerated by repeated loss of blood.” 290.

The patients whom Mr. T. has seen, have generally been florid and robust, seldom affected in their general health till the advanced stage of ulceration, sanguine of recovery, and, therefore, an easy prey to the bold bad quack, either in the profession or out of it. Mr. T. would say it was more incidental to the inhabitants of the country than of the town, as well as to the ages of from fifty-five to seventy, than any other period. The sore is a specimen of the most purely local cancer, and long after ulceration remarkably circumscribed. Caustic is strongly reprobated by our author, who observes that the proper remedy is free excision, both in breadth and depth, of the indurated warts or tubercles in the skin of the face, occurring at the stated and critical period of life. The absorbent glands are seldom so affected before ulceration as to contra-indicate the operation. In the stage of ulceration, when Mr. Travers thinks that its characters are too well marked to admit of a mistake as to its nature, a cure is hopeless, irritating applications destructive, and soothing ones only admissable. Such are, the watery infusion of opium, infusion of hemlock, &c. under a simple emollient or poultice, and the properly diluted ointments of the oxydes of bismuth and of zinc. In the stage of superficial ulceration, transient and fallacious improvements not unfrequently occur. The disease, on the whole, is not very common.

2. *Medullary Tumour of the Face and Angle of the Jaw.*—

This is sometimes seated in the cellular membrane, more commonly in the lymphatic glands. Mr. Travers has seen it occupying the situation of the zygomatic fossa, and also, over the

parotid gland, covering this and a portion of the buccinator muscle. Such tumours are movable at first—of slow growth—little painful—increasing, from the size of a small bird's to a goose's egg, when the skin is universally adherent, erubescant, and polished. Their softness and appearance of pointing induces the inexperienced surgeon to puncture them, when blood, not pus, escapes. Mr. Travers has seen them situated on the hairy scalp, when "the subjacent bone is affected by the disease, or ulcerated by pressure before they reach any considerable size." Our own observation would lead us to conclude that, when the medullary tumour appears on the scalp, it *originates* in the cranial diploë. We could mention some curious cases, did our limits allow of the digression from analysis. The lymphatic gland over the parotid, and the glands at the angle of the jaw, are not unfrequently the seat of the medullary tumour, which, on section, exhibits a compound character, a mixture of the degeneration and the normal glandular texture. Mr. Travers mentions three cases of the disease in the several situations above-mentioned, in all of which the operation failed.

3. *Cancer of the Eyelids and Contents of the Orbit.*—"It begins in the form of a hard fretful pimply ulcer upon either palpebra, or one of the borders or angles of the tarsi. It is discoloured by inflammation and sometimes itches, discharges a thin matter, and scabs repeatedly. When it draws surgical attention it is an irregular sore, notching or puckering the border of the affected lid by removal of its substance, and creeping around the orbit. Its progress is slow, but after some time the conjunctiva of the palpebra becomes elevated, thick, and rigid. The ulcer at length environs the orbit and eyeball, and a luxuriant fungus overshoots, and together with the hanging remnants of the lids, buries the eye—so that, although the globe remains, it becomes difficult to be seen. The pain is itching and burning. The ultimate stage of the disease presents a horrible appearance. For a long time the globe remains (I have seen the cornea and humours clear) suspended, as it were geometrically, in the centre of the ruin—the malar and temporal bones are denuded, but an immense fungus mass encircles the orbit, and in part springing from it, is everted over the supercilium, nose, temple, and cheek. The globe at last perishes, but seems rather to yield to its complete insulation than to the destroying process which it has so long withstood." 235.

Two instances of extirpation are glanced at, in both of which the disease returned. Mr. Travers removed the lachrymal gland exclusively affected with scirrhus, and prior to internal ulceration. The patient continued free from disease for some years, but has since been lost sight of.

4. *Medullary Tumour of the Eye-ball and Contents of the Orbit.*—This disease has been so fully described by ophthalmic writers, that our author does not enter into particulars respecting it. He remarks, however, that the peculiar metallo-lustrous, or tapetum-like appearance of the fundus of the eye is *not* diagnostic of the disease, as he has seen several cases in which it has continued stationary, with the eye-ball dwindled; a fair presumption against malignancy. In these cases long alterative or salivating courses of mercury had been employed. Mr. T. has also lately seen a case which convinced him that adhesive inflammation of the choroid coat, terminating in a deposit of lymph, which undergoes a vascular organization between that membrane and the retina, "presents an appearance so exactly resembling that of the incipient medullary cancer, as to put it beyond doubt that the real nature of the appearance, if not the occasion, is one and identical in both cases." The case was that of a young lady, in which it followed a wound with a pair of fine scissors, which had passed obliquely between the margin of the iris and the ciliary body.

"The best diagnosis is founded on the increase of volume of the eye-ball, or the contrary, prior to the giving way of the tunics. Even this, and loss of shape, and discoloured tumours of the sclerotic are, however, insufficient, as all may be produced by disorganizing choroiditis; but the progressive advance of the tumour to the cornea, and the shrinking and sloughing of the latter membrane, which happens prior to the protrusion of the fungus, is decisive of all doubts. The hydrophthalmic enlargement, or the direct collapse by interstitial absorption of the contents of the eye-ball, are sure indications that the disease is not malignant." 237.

Medullary cancer is frequently seated in the fatty membrane at the back of the globe.

"An extraordinary globular tumour is formed round the ball, of which the perished cornea forms the centre. It projects, stretching and so separating the lids, that they girt tightly the base of the enormous swelling. I have seen several children the subjects of this affection. The growth is sometimes confined to the upper or frontal aspect of the orbit. The upper lid is then prolonged and stretched over the globe so tightly that it is difficult, if practicable, to obtain a view of the latter. The medullary matter is of a granular or ricy consistence, and pervades and destroys the muscles, periosteum, and finally the bony vault of the orbit. I have seen its extirpation boldly performed; but its re-appearance has been almost immediate, and its progress quick to destruction." 238.

Mr. Travers never knew an instance in which medullary cancer of the eye failed to return after the operation. When firm adhesion exists between the lining membrane of the orbit and tubercles of the globe or the nerve, even to the foramen opticum, the operation is very difficult, and unsatisfactory in its result.—Deep-seated disorganizing inflammation is apt to be mistaken for this disease, but the transverse section of the globe is an efficient remedy and proper test, which should always be practised if a doubt of the nature of the case exist. In the malignant disease, a small discharge of blood and black pigment, or coagula stained with it, ensues, without collapse of the globe; in the other, a discoloured fluid escapes, the globe collapses, and the cure is complete.

## Abstract of Domestic Medicine.

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### THE AMERICAN JOURNAL OF THE MEDICAL SCIENCES.

THE February number of this work is a formidable volume of no less than three hundred pages. We mean no disparagement, for certainly it is creditable to American talent and *industry*, but when so ponderous a book challenges our attention once in three months, and instead of finding a rich collection of facts—of original suggestions and interesting intelligence, we find ourselves compelled to wade through formal treatises which are made the vehicles of a few new ideas—reviews of medical works made up of insulated extracts, instead of graphic analyses of entire works, we cannot but express an apprehension that the periodical works of the day are departing from their proper limits as the “abstracts and brief chronicles of the times.” A great object of competition among editors seems now to be, to present their readers with the greatest number of closely printed pages. Is not this “a pitiful ambition”? Within ten years journals have grown to twice their former size. This would be less startling if modern invention, so fertile in new devices, could only double the speed of our eyes and intellects in reading a book; but, unluckily, although there are machines which print both sides of a sheet at once, there are no spectacles through which we can read and understand both sides of a leaf at the same moment. We believe that some of our friends are industrious readers, but we know not one of them who regularly reads the whole mass of even two of the ponderous journals of the present day. There is a tact in reading, however, and the eye of a judicious reader, it is true, will rapidly analyze the pages of such a book.—This is a bad habit of reading, nevertheless, but it is one into which the infinite prolixity of writers absolutely compels us. Is it not better, then, that the editor should analyze, and the writer condense, and books be furnished which we may have patience to read thoroughly. If one needed straw, chaff, and bran, no doubt he would choose to purchase his wheat in the sheaf; but the majority would prefer not to do their own threshing, winnowing, and sifting. We repeat, that we do not particularly censure the above named work; our remarks are applicable to many others. We proceed to analyze some very excellent papers which it contains.

ART. 1. *On Absorption.* By Professor Samuel Jackson, M. D. This is a very excellent elementary lecture, but not suited to the pages of a journal. The simplest kind of absorption Professor J. states to be the molecular; it takes place in the simplest form of animal existence, in which each particle or molecule has an independent life, and attracts to itself the materials of its growth without the aid of vessels or other common organs. It is analogous to the imbibition of a sponge. In man, the process is, in part, effected in this manner, and in part by lymphatics and veins. By these are accomplished *external* and *internal* absorption, terms which explain themselves. Dr. J. seems to consider the question relative to venous absorption as settled. On the authority of Fohman he denies the existence of direct communicating branches, as asserted by Lippi to pass between the venous and lymphatic trunks, and which seemed to contravene the results of Magendie's experi-

ments. In proof of venous absorption, Dr. J. relies on the experiments of Magendie, on the fact that no lymphatics exist in the brain, on the non-absorption of water, alcohol, &c., by the lacteals, and the uniform absorption of them by the mesenteric veins—also the rapidity with which colouring and odorous substances enter the veins. Dr. J. also adopts the belief of Broussais, that, in the circulation, much of the blood is extravasated into the textures of the organs, and again drunk up by the veins. This, he says, can be proved by microscopic observation. Certainly this is effected in the erectile tissues. The writer does not, like Magendie, deny the function of absorption to the lymphatics, but thinks, from their analogous arrangement and structure, that they must enjoy this office together with the veins. He believes, however, that they chiefly exist for the purpose of returning the white blood which circulates in the colourless organs, as the veins return the more gross fluids.

To explain the introduction of fluids into absorbing vessels, and their transmission by them, (a deplorable hiatus in physiology,) the Professor resorts to the power of *exosmose* and *endosmose*, which has been set forth by Dutrochet. We believe there is truth in it. Galvanism is the essence of this power. By its current we have long known that fluids, and even solids can be transported through pervious tissues, and even through unorganized matter. Whenever vesicles, pouches, or sacs, containing a fluid, are in contact with a fluid of less density, the last is constantly introduced within the vesicle or pouch, and if a tube be attached to it, will rise to a considerable height. This is *endosmose*, while *exosmose* is the passage of the more dense substance from within the vessel or sac. These *currents*, it appears, can be effected with a great deal of power.

ART. 2. *Case of Aneurism of the Innominata cured by ligature placed on the carotid beyond the tumour.* By Professor Mott, of New York. This case is very interesting, inasmuch as the propriety of the surgical expedient here resorted to is now undergoing discussion. The object, since the time of Hunter, always being to check the circulation through aneurismal tumours till nature can effect their consolidation, Brasdor recommended, in some cases, to tie the artery beyond the tumour. Mr. Wardrop acted on the suggestion, and succeeded. So has Professor Mott in the present instance. The patient had a pulsating tumour projecting above the margin of the sternum, of the size of a walnut. On applying the stethoscope there was heard a whizzing sound. The tumour seemed encroaching on the chest—respiration was impeded by any exertion, and especially by pressing the tumour. The pulsation of the carotid was feeble—so also was that of the subclavian. No pulse at the wrist, or in the small branches of the carotid. On the 26th September, the Professor tied the carotid, intending, should it be necessary, subsequently to secure the subclavian. On the 22d the tumour had entirely disappeared—the wound had healed—arm weak—fingers thick and clumsy—arm oedematous—no pulse at wrist—breathing easy—cough less—sleep natural. The case may be regarded as successful. It is the first operation of the kind which has been performed in our country.

ART. 4. *Case of successful Excision of the Cervix Uteri.* By J. B. Strachan, M. D., reported by T. F. Gilliam, M. D., of Virginia. A very creditable achievement. The operation was performed on the person of a lady aged 33, in whom the cervix uteri was affected with extensive scirrhus and fungous growth. The operator drew down the diseased cervix with his fingers alone, almost as low as the os externum, this being rendered more easy by the relaxation of the parts. It was thus made accessible to the scalpel, which was found to be the most convenient instrument for the operation.—The knife penetrated none of the adjoining cavities, in effecting the circumcision of the cervix. Common dressings were applied. There was but little hemorrhage. Pains, like those of labour followed, and seemed to arrest the hemorrhage;—they required anodynes. Subsequently, there were symp-

toms of inflammation in the lower belly, but they yielded to judicious treatment, and the patient recovered.

ART. 5. *Observations on Pyroligneous acid in the treatment of Gangrene, Ulcers, &c.* By Thomas Simons, M. D., of South Carolina. Dr. S. uses that variety of the acid of the shops which is transparent, and which, when agitated, shows small crystals floating in it. He dilutes it with equal parts of water, gradually still more diluting it as the sore improves. It should produce smarting. He applies it through the medium of lint. If it be too strong, it will cause the surface to turn white. The Doctor relates cases of gangrene treated with it in which the remedy was decidedly beneficial. But a case, which he regarded as fungous hematodes, we are persuaded was not that disease.

ART. 6. *Use of Tart. Emet. Ointment in Chorea.* By Charles Byrne, M. D., U. S. Arsenal, near Baltimore. In an interesting article on this subject, the writer first reminds us of Jenner's employment of this remedy in chorea, also of the experience of Mr. Hunter, of Glasgow, and of Dr. Wharton, of Virginia, in its favour. He then relates two strongly marked cases, in which he employed it with the most happy effects, after premising the usual correctives of the constitution. He directed two drachms of the unguent of Tart. Antim. to be rubbed along the whole spine, three times a day, till a crop of pustules appeared.

ART. 7. *Case of Aneurism by Anastomosis in which both primitive Carotid Arteries were tied.* By Professor Mussey, of Dartmouth college. This is an instructive case, and was very ably managed. The tumour, of 2 inches elevation, was seated on the vertex of the head, in a man of 20 years—had existed from birth, but actively growing only for three years previous—occasionally had bled largely. Twenty arteries, nearly of the size of goose quills, were seen pulsating on the head and entering the tumour. The left temporal was very large. Professor M. tied the left carotid 20th September. The tumour became a little less tense and livid, but still it received an abundant supply of blood. The right carotid was tied on the 12th. Functions of brain not disturbed by it, nor fainting produced, nor loss of muscular power. Compresses were applied, and the tumour diminished for four weeks; then again increased, and began to pulsate. The surgeon determined to extirpate it. He slowly and cautiously dissected away the whole mass from the pericranium, compressing the vessels as the blood gushed from their divided extremities, and occasionally delaying to secure them with ligatures. The patient bled frightfully—lost two quarts of blood. We have the highest respect for the skill and intelligence of Professor M., but we cannot help thinking that they would have “managed this thing better in France.” Would there not have been less blood lost if the operator had boldly swept off the tumour with rapid strokes of his knife? This need not have occupied a minute, and there would not have been much more bleeding from all the arteries, simultaneously cut, than from two or three. The whole being removed, compression could have been very effectually made on the firm cranium, and the vessels secured. By securing them in succession, as they were cut, compression must have been very inconveniently made, and the same tortuous vessel was probably tied more than once. Had there been uncontrollable bleeding, M. Dupuytren would have flourished his hot irons. This case shows the inutility of withholding a part of the blood from such a tumour, when the disease is on the median line, where the anastomosis is most free. Had it been on either side, the result of tying the arteries might have been more favourable.

ART. 10. *Reports of cases treated at the Baltimore Alms-house Infirmary.* By Thomas H. Wright, M. D.

Dr. Wright's Reports are some of the most valuable pages of this work. They are written with elegance and scientific precision—are full of sound pathology and efficient practice.—Case 1st. is one of chronic induration of the stomach. Patient aged 43, tall, spare, dark complexion. Symptoms,

(March 20, 1829) chronic pain of stomach and bowels, remittent, commencing in stomach, propagated to bowels—paroxysm resembling painter's cholera. Uneasiness in stomach nearly constant; in bowels lasting five hours; patient seeking relief by lying on the belly. No fever, tongue clean, bowels slow, urine free, sometimes clear, often red, urea abundant, occasionally much mucous. Eating aggravated pain, every mouthful producing sense of weight in stomach; hence but small quantities of food could be taken, and but at long intervals.

No difficulty in swallowing; sometimes vomiting of glairy fluid, some time after food had been taken. Tenderness of epigastrium, *hard sensitive point* under the anterior portion of the left cartilaginous border, two inches from end of sternum. Belly not hard, but very flat. *Diagnosis*—"Chronic gastric, irritation advanced to positive lesion; contraction and condensation of stomach;" chronic nephritis; hypertrophy of kidney, and contraction of coats of bladder. In progress of disease the lungs gave evidence of slight organic derangement. Died, May 9th. On examination, small ulcerous cavern found in superior lobe of left lung. In the abdomen, omentum reduced to thin membrane an inch broad. Cavity of stomach very small, longitudinal plates of mucous membrane much raised, widely separated, of a dark colour, remarkably contrasted with the pearl-white surface of the sulci. No recent bloody infiltration. Cut edges greatly condensed, half an inch thick, less hard than scirrhus, but dense, firm, coriaceous, with intersecting bands, coats confounded. Oesophagus and duodenum healthy, and the orifices of the stomach no more diseased than other parts. In the middle anterior region of the stomach was a point thicker, harder, and rougher than the rest, which was probably the *hard sensitive point* felt before death. Kidnies and bladder found as anticipated. "This case," says the intelligent writer, "strongly illustrates a result by no means common, yet perhaps more frequent than we are aware, of that irritation of the stomach, called dyspeptic disorder, when long continued and aggravated by great errors of diet."

Case 3d is a very interesting one of aneurism of the descending aorta, producing asthma organicum. Patient, a washerwoman, admitted, March 1st. Had caught cold in Feb., had chills and fever, pain in breast, dyspnoea, cough, hoarseness, was very ill, but soon recovered of all, except difficult breathing, short cough, rough whispering voice. Health described as good previously. Symptoms on admission, short wheezing respiration, frequent abrupt cough; no expectoration, but discharge of frothy sputum from larynx and fauces. *No pain or soreness in breast*, chest sounding well, except upper third of sternum, and under left clavicle; expansion of thorax equal on all sides; voice and speech nearly abolished; no fever, no gastric, hepatic, or cephalic derangement; tongue clean, appetite good, evacuations natural. *Diagnosis*—Chronic engorgement of mucous membrane from laryngitis was suspected. Remedies employed; calomel, squills, antimony, &c., counter-irritation to chest. General health remained the same; no improvement in breathing, &c. Ptyalism was excited, but with no advantage. Dr. W. then suspected asthmatic form of pulmonary embarrassment, unusually profound and protracted. Prescribed accordingly, but with no benefit. Next suspected enlargement of bronchial glands and employed iodine—still foiled. May 29th, patient suddenly died of suffocation.

Post-mortem examination revealed sound state of the lungs—no infiltration in thoracic cavity or pericardium, bronchial glands large but soft—firm body found occupying the whole upper space of left thorax—round and smooth, closely attached to left side of spine. Adhesions close and strong for five inches. Substance within the tumour of yellowish green hue, solid pulpy feel, covered by regular sac, very thin, peeling off easily, with smooth inner surface not incorporated with contents. The tumour was an aneurismal enlargement of the descending aorta, beginning at the left subclavian—greatest circumference 6 to 7 inches—solid and round every where, except

that along the concave arch line of the aorta there was a free canal, smaller than the calibre of the artery, and communicating with the open part of the aorta at both ends. In this was found a thin stratum of coagulated blood, and none elsewhere. The greenish concrete, filling the tumour, was like the pulp of an unripe peach—it undoubtedly was lymph—uncertain whether slowly deposited from blood, or remains of coagula. The tumour was found adherent to the side of the trachea, and pressing so firmly as to nearly close the passage into the bronchii. Aorta, near the heart, much dilated. In this case the usual symptoms of aneurism were absent—pulse was always regular—no sudden paroxysms of distressful breathing—no agitation, coldness, sweating, tremors, swooning—no external pulsation, none of the aneurismal thrill so characteristic. This was owing to the firmness of attachment and to the pervious state of tumour.

ART. 11 and 12, appear to be well written papers, but are not suited to our purpose.

ART. 13. *Case of concealed Phthisis, illustrative of Sympathetic Irritation.* By W. M. Fahnestock, M. D. Patient, female, æt. 24, small, brunette, irritable temperament, mother of the sixth child, reduced to very delicate state by last confinement, Oct. 1824. In December, constriction of chest, præcordial uneasiness, deep obtuse pain below the clavicles; soon increased to produce dyspnoea, dry cough, &c. A few days after, pain still more acute, extending through shoulders to the neck and back of head; skin dry; bowels constipated; pulse 100—bleeding, 16 oz., and purgatives. Jan. 7th, no mitigation; pulse 120; skin dry; head painful; eyes protuberant and watchful; fever every afternoon, v. s. 12 oz.; laxatives daily; refriger. mixt.—anodyne at night; epispastic to neck; sinap. to feet. 10th, debility and aggravation of symp., pulse 140, weak; head shaved and blistered; tinct. digital. 13th. No abatement—extreme pain in teeth; foment. scarific. general treat. continued. 16th. All the remedies persevered in sedulously with no good effect. Yielding to patient's entreaties, extracted four molar teeth with no benefit, but threw disease upon more vital part. Rigors and nausea, followed by pain and oppression at epigastric region. Blister over this region—sal. nitre, 1 drachm; sacch. alb. 2 drachms; emet. tart 2 grs.; aquæ puræ, 4 ounces; lavd. comp. 2 drachms.—M. dose, table-spoonful every two hours. 22d. Mixt. produced sensation of cold and spasm in stomach—reduced pulse to 110, though occasionally rising to 130. Calomel in small doses, and enémata. 27th. Same state; ipecac. added to calomel—blister renewed. 30th. Symptoms similar till last evening; during night another mitigation; pain left stomach and fixed itself in thorax. Following evening rupture of an abscess in chest, with copious, suffocating discharge of pus. Then followed a rapid train of hectic symptoms—purulent expectoration; night sweats; colloquative diarrhoea, &c. &c., which soon put a fatal termination to the case with all the traits of phthisis.

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Our subscribers will greatly oblige us by the early communication of all interesting medical intelligence. We shall furnish a comprehensive summary of foreign intelligence for our next. We trust that the pains which we take to condense, and bring within the compass of our journal, a variety of information, will, in some degree, compensate for the small number of our pages, which, however, will soon be extended. Our enterprise is humble, but we trust not the less likely to succeed.

THE  
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No. IV.

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**Original Essays.**

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**ART. I.**—*An account of the Small-Pox, (in reference to vaccination) as it appeared on board the U. S. Frigate Macedonian, in the year 1828. By B. Ticknor, Surgeon.*

As the subject of vaccination has of late acquired additional importance, in consequence of the prevalence of small-pox in many parts of our country, and as there is a considerable difference of opinion among medical men, respecting the degree of protection which vaccination affords against this destructive disease; it is desirable that every fact should be brought forward which can tend to dispel the doubt in which this interesting subject is at present involved. It is with this view that I am now induced to appear before the public; and small as the amount of useful information may be which this paper contains, yet it is believed that it may contribute something towards establishing the true character of vaccination, and therefore ought not to be withheld.

A few days before the Macedonian sailed for the U. States, in the month of August, 1828, a colored man was received on

board, who had just been discharged from an American vessel, and who was labouring under such symptoms of disease, as led me to suspect that he might have taken the small-pox; especially as I knew that the disease was prevailing on shore, as indeed it almost always does at Rio Janeiro, where we were then lying. I was induced to keep a more watchful eye over this case, in consequence of our having taken a man on board in similar circumstances, a few months before, at the same place; in whom the small-pox made its appearance two days afterwards, in its most confluent and severe form. He was sent ashore immediately, and died in three days; but the disease was not communicated to any one on board.

In the latter case, however, we were not so fortunate; for notwithstanding the man was sent out of the ship as soon as it was ascertained that he was labouring under the small-pox, yet it was too late, the disease had been communicated to a man who lay next to him in the sick-birth, and from him it spread through the ship.

Before proceeding farther, it is proper to observe, that previously to sailing for the coast of Brazil, where it was known there would be constant danger from the small-pox, the precaution had been taken by the commander, Commodore Biddle, to have all the crew who were liable to the disease, vaccinated; in consequence of which, almost all of the original crew were considered secure.

On the 30th of August, 1828, we sailed from Rio Janeiro for the U. States; and when we had been about 10 days at sea, the small-pox made its appearance. It appeared first in the man whom I have mentioned; and notwithstanding every possible mean was used to keep the rest of the crew out of the reach of the contagion, as a large number of men had been received on board during the cruize, who were not known to be protected against the disease; yet not one escaped on whom the contagion could operate.

I shall not enter into a detail of the symptoms, as they were such as usually attend the disease. It may be worthy of remark, however, with regard to the symptoms, that in almost every case, pain in the lumbar region, was the most complained of, and occasioned the greatest distress. In some cases it was so extremely severe as to render the patients incapable of remaining a single moment in one position. The disease appeared more or less in a confluent form in most of those who had not been vaccinated; and in two or three, it assumed a most malignant character.

As soon as matter could be procured, all who were considered liable to the disease, were inoculated; but it was then too late, the contagion had already begun to produce its effects in all who were susceptible of its operation. The whole number of cases was thirty-one; and of these eight terminated fatally.— Three died with the primary symptoms, before the sixth day; four were carried off with the secondary fever, from the tenth to the fifteenth day; and one was exhausted by the profuse discharge from abscesses and died on the twenty-fifth day.

With respect to the treatment there is occasion to say but little. In no disease, I believe, are the powers of medicine more completely unavailing, than in the small-pox. It will run its prescribed course in spite of all that the physician can do, and that too, without its severity being in any considerable degree mitigated. The most that can be accomplished by the skill of the physician after the contagion has once begun to operate upon the system, is to moderate the violence of febrile excitement, during the eruptive stage, and by that means lessen the subsequent prostration, although no change of consequence may be made in the character or quantity of the eruption. And in the last stage, when the system is sinking from the violence of the struggle which it has sustained, or from a profuse purulent discharge, it is in the power of medicine to render some assistance. To accomplish the first of these objects, that is, to moderate the violence of febrile excitement, I know of no means more effectual, in addition to cool air and cool drinks, than small doses

of calomel and the pulvis antimonialis or tartarized antimony.— These were administered in every case while the excitement was high; and I am satisfied that they had some effect in moderating it. The duration of this stage of the disease, in which antiphlogistic measures were necessary, was generally six or seven days; that is, from the commencement of the eruptive fever, until the eruption, which usually appeared on the first or second day, was completed. Venesection was employed but once for the purpose of reducing excitement, and then it failed of producing any permanently beneficial effect.

Such were the means employed during the first stage of the disease; but it was during its latter stage, when the system was prostrated by a long and violent struggle, that the beneficial effects of medicine were most apparent. Tonics at this period, were of essential service, and undoubtedly gave a favorable termination to some cases, which would otherwise have had a fatal issue. A very useful medicine of this class, consisted of a decoction of cinchona slightly acidulated with the aromatic sulphuric acid, and about a fourth part of spirits. Two or three ounces of this were given for a dose, and repeated every two or three hours, with very decided benefit. I come now to the principal object of this paper, which is to exhibit some facts in relation to the power of vaccination in preventing and modifying the small-pox.

It has been stated, that the number of cases of this disease which occurred on board the Macedonian, was thirty-one: of these, thirteen occurred in persons who exhibited satisfactory evidence of having undergone vaccination. In most of them, the scar of the vaccine pustule, presented in its most perfect form, the asterisk appearance, on which so much stress is laid by the advocates of the never failing efficacy of vaccination. Besides this, they all recollected very well when they were vaccinated, and from the account they gave of the manner in which they were affected, and of the appearance of the pustule at the different stages of its progress, there can be no doubt of the genuineness of the disease, at least in most of the cases. Two of these

patients were midshipmen, one of whom had been vaccinated by Dr. Warren of Boston, and the other by Dr. Physick of Philadelphia; and both had of course been pronounced secure against the small-pox. With regard to the time that had elapsed from the period of vaccination, another point in estimating its efficacy, believed by some to be very important; as well as I could ascertain, it had been from three or four to twenty years. The two midshipmen had been most recently vaccinated; and although they had the small-pox very light, yet it was equally light in several others, who had been vaccinated from ten to fifteen years before.

In order to ascertain in what proportion the vaccine virus had effectually secured the system against the variolous contagion, I carefully examined every person in the ship, who had not unequivocal marks of small-pox upon him; and the result of my examination was, that there were about one hundred and fifty who had been vaccinated; of whom thirteen as has been stated, took the small-pox. I am aware that it may be said the disease was not genuine in these cases, by those who are unwilling to allow that genuine vaccination ever fails of affording perfect protection against the small-pox. But this would be a gratuitous assertion, proceeding rather from preconceived opinions, as it appears to me, than from an impartial examination of facts. There was precisely the same evidence of the genuineness of the disease in those thirteen cases where it failed, as in the others where it succeeded; and to say, that only the latter had it in its genuine form, would in my view, manifest too strong an attachment for an opinion formed upon insufficient data.

From the facts which have been stated, it is obvious, I think, that neither in the primary symptoms attending vaccination, nor in the appearance of the scar, have we any certain evidence of the genuineness of the disease. As far as this kind of evidence can be relied on, the disease was quite as genuine and quite as likely to prove effectual in those thirteen cases where it failed, as in the others where it succeeded. Such, I am sure, was the fact, whether it can be accounted for or not. I shall not enter

into any speculation, however, on this subject; it being my design only to state such facts in relation to it as came under my observation, with the conclusions to which they necessarily lead. And having now exhibited those facts which show to what degree vaccination is capable of preventing the small-pox, altogether, I shall state those which relate to its power of modifying that most terrible disease. This will be best done by describing it as it appeared in those who had been vaccinated; from which it will appear, that when vaccination does not afford perfect security against the small-pox, it possesses the power of effecting such a change in the system, as to alter very materially some of the most important features of the disease.

Until the eruption made its appearance, the disease pursued the same course in those who had been vaccinated, as in those who had not; but after this period there was a very manifest difference. In the latter class, the eruption was rarely completed in less than four days; but in those who had been vaccinated, it was generally completed in two days, and sometimes in one. During the first stage of the eruption, there was no material difference in the appearance of the pustules in the two classes of cases; but by the time the eruption was completed, that is, as soon as the third day from its commencement, a considerable difference began to manifest itself. This consisted in the smaller elevation and flattened surface of the pustules in the modified cases, which gave to the eruption rather a papular, than a pustular appearance. In these cases, the pustules never acquired that prominent spherical form, which they do in the distinct small-pox; nor did they in a single instance, undergo the same suppurative process. They generally contained but a very small quantity of matter, and this never exhibited the colour and consistence, which the matter of the common variolous pustule does. It remained a thin limpid fluid, until a crust began to form on the pustule, which was usually about the third or fourth day from the first appearance of the eruption. The process of desiccation occupied but two or three days, at the end of which time, the small flattened pustules were changed into a dry brown crust.

Such was the progress of the eruption in every one of the modified cases; as well in those that were severe, as in those that were light. Although it was chiefly in the character and progress of the eruption, that this modified form of the disease, differed from that of the common small-pox; yet there were some circumstances in the general symptoms, which ought to be taken notice of. In every one of the modified cases, even in the most severe, the eruptive fever subsided suddenly and entirely, immediately on the appearance of the eruption, but in all the others, especially in those that were at all severe, the eruptive fever continued several days after the eruption commenced, and then subsided very gradually. There was no secondary fever in any of the former class of cases; notwithstanding the primary symptoms in some of them were more severe, than in some of the others, where it did occur and prove troublesome. Except in two or three instances there was no feeling of indisposition in the cases of the former class, after the eruption appeared, and the eruptive fever had subsided.

From what has been related, it must be apparent, that the severity and duration of small-pox were very considerably lessened by vaccination; but this was particularly manifest in one case, on which it may not be improper to make some remarks. The subject of this case was a marine, four or five and twenty years of age, of intemperate habits, and had suffered from frequent attacks of intermittent fever. The first symptoms of the disease were as severe in this patient as in any case that occurred on board, and continued so for five or six days. Until the eruption appeared, there was a very high degree of febrile excitement, attended with so violent a delirium, as to require several men to keep the patient in his bed. The eruption commenced on the second day, and in two days was completed. It was extremely numerous, and if the disease had run its usual course, it would have been confluent over the greater part of the body, and most certainly have terminated fatally. On the appearance of the eruption, the febrile symptoms subsided, and such a degree of prostration succeeded, as required all the aid which tonics and sti-

mulants could afford. The pulse, while the patient continued in this state, was most of the time so weak and frequent, as not to be counted; and the temperature of the surface was considerably below the healthy standard, and the skin was of a livid hue. About the end of the third day, from the time the eruption first appeared, and while the pustules were still very small, and contained only a small quantity of limpid fluid, a brown crust began to form on them; and at the same time, a favourable change began to take place in the general symptoms. The delirium became less furious, the pulse less frequent and stronger, the surface acquired its natural temperature, and where it was not occupied by the eruption, its natural colour. In the course of two or three days more, nothing remained of the eruption but a dry crust; and by this time, all the threatening symptoms had subsided.

I have been thus particular in describing this case, in order to show to what degree vaccination is capable of modifying and controuling the small pox, in those cases where it does not wholly secure the system against it; for I have not the least doubt that this case would have terminated fatally, if the patient had not been vaccinated. No case that occurred on board presented a more hopeless train of symptoms than this did, till the period, when the controuling influence of vaccination began to manifest itself, and then every alarming symptom immediately disappeared. This was much the severest of the modified cases, though there were two or three others that were considerably severe, during the eruptive stage; but however great the difference might be in the severity of the symptoms, the same general features appeared in all of them, and constituted, as must be obvious to those who have had an opportunity of observing it, the varioloid disease. My opportunities for observing this disease, have not been such as to enable me to speak of it in very positive terms; but judging from the few cases that have fallen under my observation, and from what I have read on the subject, I am led to believe, that it differs from the ordinary form of small pox, principally in the following particulars, namely:

the shorter duration, and sudden abatement of the eruptive fever on the appearance of the eruption; the earlier appearance and more rapid progress of the eruption; the smaller size of the pustules, and their never acquiring the spherical form which they do in the distinct small pox; the quicker drying of the pustules, which usually begins on the third day from the commencement of the eruption, and when they contain only a small quantity of fluid; and lastly, the process of desquamation taking place much sooner, and being completed in a much shorter time, than it is in the mildest case of the common form of small-pox. These appear to me to be the peculiarities which essentially belong to the varioloid disease; and they were all observed in every one of the cases which I have described.

Considering this, then, to be the genuine varioloid disease, have we not reason to believe, that this disease is, in all cases, the small-pox modified by vaccination? As far as the few facts which have been exhibited in this paper go, it certainly tends to support that opinion; and for my own part I am inclined to believe, that if satisfactory information could be obtained on the subject, it would be found, that in every case of the varioloid disease, the patient had previously been subjected to the action of the vaccine virus. Much might be said on this subject, if we were to comment on the opinions of those who have written on it; but as this would be productive of no benefit, and as my only object is to state such facts in relation to vaccination, as have fallen under my observation, I shall conclude with the following remarks, which I think may fairly be deduced from the facts that have been exhibited.

1. That the scar left by the vaccine pustule, affords no satisfactory evidence of the genuineness of the disease; so that, if vaccination in its genuine form, did effectually secure the system against the small-pox, no safe opinion can be formed on this point, from the appearance of the scar. But,

2. It is evident, from the cases which we have described, that even in its most genuine form, vaccination does not afford any certain protection against the small-pox; and consequently, eve-

ry person who has been vaccinated, must be considered still liable to that disease, and that too, in a severe form.

3. That although vaccination does not exhibit any certain evidence, either in the symptoms which primarily attend it, or in the marks which it leaves, by which it can be known that it has effectually secured the system against the action of the variolous contagion; yet in a great majority of cases, it does actually afford such security: and where it falls short of that, it nevertheless effects such a change in the system, as greatly to modify the character of the small-pox, and in a great measure to divest it of its fatality. With the preceding facts and observations in view, it may not be improper to say a few words respecting the comparative advantages of vaccination, and the inoculated small-pox. It is manifest, that when vaccination fails to afford entire protection against the small-pox, it loses one of its chief recommendations; and that such is the case now, and has been so for some years past, must be evident to all impartial observers. The vaccine disease, however, being so mild, and being incommunicable except by inoculation, it does not wholly lose its value by failing to sustain fully the character which it received from its first advocates, and which some of its zealous supporters of the present day, are not willing to acknowledge it has in any degree lost.

But the inoculated small-pox is also a mild disease, generally as free from danger as the vaccine disease, though of somewhat longer continuance; and it is milder than the varioloid usually is, which, as we have seen, is the small-pox modified by vaccination. If, then, the small-pox could be communicated only by inoculation, as is the case with vaccination, it would certainly possess a great advantage over that disease; as those who have had it once, may consider themselves perfectly secure against having it again. It is true that cases have occurred of persons having the small-pox the second time, but these have been so extremely rare, that the person who has once had it, may consider himself perfectly secure against a future attack. But as the small-pox is extremely liable to be communicated by other means

than inoculation, and when so communicated, is one of the most formidable diseases, to which the human race is subject; and as vaccination so far mitigates its severity, as to render it a comparatively mild and safe disease, it ought certainly to be considered as possessing important advantages. It is this power of changing a most loathsome and fatal disease, into one comparatively mild and free from danger, which constitutes the chief excellence of vaccination; for so far, it may be relied upon with perfect safety, but as a preventive, it is not entitled to implicit confidence. Whether it is less effectual now as a preventive, than it was for some time after it was discovered, is a question which I shall not attempt to answer. It is probable, however, that like all other new discoveries, it was too highly extolled by its first advocates; and now, when it is found not to be entitled to all the confidence which was at first reposed in it, many are disposed to discard it altogether, as being wholly incapable of exerting a salutary influence over the small-pox. But this is going from one extreme to the other; and the true estimate of vaccination is probably that, which attributes to it in its genuine form, the power of wholly preventing the small-pox, in a great majority of cases; and in others, of producing such a change in the system, as to render it unsusceptible of the action of the variolous contagion, except in a modified and mitigated form.

Viewing the subject in this light, I do not hesitate to express the opinion, that, where circumstances should admit of the small-pox being taken by inoculation, without any danger of its spreading by casual means, it ought to be preferred to vaccination; because, as I have already observed, the inoculated small-pox is almost always a light disease, and when a person has once had it he is ever after secure. But it is not so with vaccination: a person never feels himself secure, until repeated exposure to the contagion of small-pox has tested its efficacy. My advice, therefore, to all persons who are liable to the small-pox, and especially to parents, would be, not to rely on vaccination, where it is practicable to inoculate for the small-pox, without endangering its spreading; but where it is not, I would advise them by all

means, to have immediate recourse to vaccination, as this will afford, at least, a probable security against the disease in any form, and almost a certain security against that severe form of it from which very few recover.

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**ART. II.—*Hints on the Extirpation of Encysted Tumours which adhere to the skin.* By N. R. Smith. M. D. &c.**

There is scarcely any minor operation which the surgeon is more frequently called upon to perform, than that for the removal of those small encysted tumours, containing an atheromatous matter, and which occur on the face, neck and head. The operation, although nothing formidable, is rarely accomplished with as much facility as is anticipated. The tumour, being generally small, is dissected from the surrounding parts with more difficulty than a more voluminous body would be—it being impossible to use the instrument with freedom. But the chief difficulty arises from the close adhesion of the external portion of the cyst to the skin which covers it, in consequence of which, if the incision be made directly down upon its summit, the cyst will certainly be wounded, its contents discharged and the neat extirpation of the tumour rendered impossible.

My opinion concurs with that of Sir A. Cooper, that these tumours result from morbid enlargement of the sebaceous follicles of the skin, and that, at one point, (ordinarily the most prominent) they necessarily adhere to that tissue. Other encysted tumours undoubtedly there are which have a different origin, and are more deeply seated. I speak but of one variety. These cysts, although they adhere to the skin, can yet be made to slip from side to side with great freedom, because they are but loosely embedded in the cellular tissue. For this reason, before the operation, they are often thought not to have any firm attachments

whatever, and the operator, although extremely cautious, finds to his surprise, on making his first incision, that he has opened the cyst without distinguishing its walls.

This accident having occurred to me several times, not only satisfied me that such adhesions always exist, but suggested a new method of procedure in effecting their removal, so as both to avoid entering the cyst, and inflicting such injury upon the skin as to cause an unseemly cicatrix. A few days since I was requested to extirpate such a tumour from the face of a gentleman, immediately below the eye. It was of the size of a hickory nut—evidently adhering to nothing but the skin, although so deeply buried that it was indistinct to the eye. Before making the incision I pushed the tumour to one side, causing it to glide from under my finger and to present itself beneath a portion of the skin to which it did not adhere. Keeping it fixed in that position I cut down upon it and found that, at that place, it was easily separable from the surrounding parts. I cautiously dissected round it till I had turned it completely from its bed, with the exception of that portion of the skin from which it appeared to have originated. Here I found it to be firmly attached; but on everting the skin, I found it to be perfectly easy to shave away the portion of the cyst which was adherent to it. Indeed no inconvenience could arise from leaving a small portion of the cyst attached there, after the whole body of the tumour was detached below, as the cutting of the cyst is of no consequence only inasmuch as it hinders the accomplishment of the operation. The wound healed very kindly and left merely a slight linear scar.

## Adversaria.

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### ART. I.—*Case illustrating the Deleterious Influence of Atmospheric Air in recent Wounds.*

In September 1829, I removed an encysted tumour, about an inch in diameter, from immediately behind the angle of the jaw, on the face of a young lady, (Miss D.) The cyst had embedded itself deeply behind the jaw, causing, undoubtedly, the absorption of much of the fatty substance which occupies that space.—When the tumour was removed, therefore, there remained quite a vacuity which was not immediately filled. The operation was accomplished with facility, the tumour being peeled away with very little injury to the surrounding parts. One or two small arteries which sprung were carefully secured. An interrupted suture was employed to bring the margins of the linear incision more nicely in contact, and adhesive strips were carefully applied. When this was accomplished, however, and before compresses and the bandage were applied, the patient suddenly turned the head to the opposite side, in consequence of which the loose integuments were drawn tense over the cavity before occupied by the tumour, and the vacuity had its walls thus forcibly separated from each. At this moment I heard the whizzing of air which, by the expansion of the cavity, was sucked into it through the spaces which had been left between the adhesive strips, for the discharge of blood and pus. I immediately discovered that the wound *was inflated with air*, and proceeded to expel it by compressing the walls of the cavity with my fingers.

I then applied a proper compress which was secured by the bandage.

It is not probable that I removed every particle of air, nor is it probable that the dressings were sufficient to completely prevent its ingress on the repetition of the motion which before caused it to be drawn in. In all other respects the wound was in the most favorable condition for prompt union by the first intention. Indeed, I predicted it with too much confidence, so nicely were the parts adjusted, and so favorable was the condition of the patient, she being at the time, otherwise, in perfect health.

On examining the parts at the end of the third day, I was somewhat surprised to observe that a high degree of inflammation was taking place in and about the wound, indicated by heat, swelling, pain and constitutional disturbance. I directed an evaporating lotion to the part, and depletory measures, notwithstanding which means, on the fifth day I found the tumefaction of the part to be very great, and discovered a fluctuation in the original seat of the tumour. On removing the adhesive strips, I thrust the handle of a small scalpel between the lips of the wound, to give exit to the matter. There was immediately discharged a large quantity of sero-purulent fluid, and it became evident, at once, that no part of the walls of the abscess had united by the first intention. This had not been defeated by the lodgment of blood in the wound, because the matter discharged was scarcely tinged with it. Nor in my opinion was union prevented by the mere mechanical action of the air confined, for the surfaces could have been only slightly separated thus. Besides, the degree of inflammation which resulted was greater than would have arisen from such a cause. It was probably owing to the irritation produced by the air.

## ART. II.

## BALTIMORE INFIRMARY REPORTS.

*Case of Lithotomy successfully performed after it had been once unsuccessfully attempted some years before—the Stone then not being found. Reported by Robert C. Cumming, senior pupil of the Baltimore Infirmary.*

George Ballinger, æt. 15, was admitted into the Baltimore Infirmary April 7th, 1830. He had been labouring under severe symptoms of stone in the bladder from early childhood. His parents reported that seven years previous, he had come under the notice of a respectable surgeon of this city who pronounced his disease "stone in the bladder"—sounded him—struck the stone distinctly, and finally performed the lateral operation for its removal, as was evident from the presence of the usual cicatrix. Owing probably to some peculiar difficulty, the stone was not found, on the incisions being made. Since that time the youth had continued to labour under the same symptoms, increasing in severity. At the time of his admission he was much wasted and his paroxysms of pain and spasm were very frequent. From the severity of his agony he had at times suffered convulsions. His own language was that "he had suffered *withering misery*." A great deal of muco-purulent matter, of adhesive consistence, was discharged from the urethra at frequent intervals. Professor Smith, under whose care he was admitted, had been called to the patient before he was received. At that time, supposing (as he had once been cut in vain, and frequently sounded by intelligent surgeons,) that there was no stone, he was unwilling to suffer an examination with the sound. Dr. S. however, examined the bladder with the finger in the rectum, and, with some degree of confidence, expressed his opinion that there were two calculi in the bladder, as he not only felt the tumour caused by them beyond the prostate, but perceived a grating sensation, as

of their rubbing upon each other. The patient experienced the same sensation.

On his being brought to the Infirmary, Professor Smith sounded him and audibly struck the calculi, which he pronounced to be of large size. The usual preparatory measures having been resorted to, the patient was placed on the table, April 8th, A. M. the pupils of the house and many medical gentlemen being present. Professor S. operated in the manner described by him in the previous number of this Journal, using the obliquely-grooved staff, and making the incision with the narrow pointed bistoury. On the incision being made, a large quantity of mucopurulent matter, of a brownish hue, gushed from the bladder.— On taking the forceps the operator instantly struck a calculus and presently removed one of an oval form, and flattened upon one side. Introducing the forceps again he encountered another, the extraction of which was delayed a few seconds by its great size. It was removed, however, with so little difficulty, that the whole operation did not occupy more than two minutes and a half. Professor S. then carefully explored the bladder with the finger, and reported that he found the organ to manifest less evidence of disease than he had anticipated. There was no sabulous incrustation, and, so far as he could ascertain, not the slightest evidence of the existence of any sack in which a stone might conceal itself.

The operator remarked that, at the time of the previous operation, there might have existed some peculiar difficulty which could not now be well appreciated, and which defeated the intent of the operation.

There was very little hemorrhage at the time of the operation, but after the patient was taken to the ward the surgeon was obliged to secure a small artery which sprung. He also bled from the bladder, and several voluminous coagula were subsequently discharged. The patient, however, convalesced rapidly—slept quietly—retained his appetite—had no tenderness

of the belly—discharge from the bladder soon asumed a more healthy aspect. He left the house at the end of two weeks from the day of the operation. The water now takes its natural channel—he is gaining flesh and strength—is free from every unpleasant symptom.

The larger calculus weighed an ounce and a drachm—the smaller two drachms. Their nuclei were lithic acid—their external incrustations the phosphates of lime, magnesia and ammonia.

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Since the above was furnished for publication, I have performed lithotomy, with the same instruments and in a similar manner, upon the son of Dr. A. Thompson of Cambridge, æt. five years. Two calculi were removed, each weighing about a drachm. On extracting the first I could not instantly seize the other, because of its small size. I threw down the forceps and introduced the first finger of the right hand into the bladder, that of the left into the rectum, and with the former rolled the stone from the bladder with great ease. I have once before practised the same manipulation, and I am sure it is far better than the frequent introduction of an instrument. This lad was playing about the house on the seventh day after the operation. No attempt was made to close the external incision by dressings.

N. R. SMITH.

## Analytical Reviews.

### ART. I.

(MEDICO-CHIRURGICAL TRANSACTIONS, VOL. XV. PART I.)

*Pathological Inquiry into the Secondary Effects of Inflammation of the Veins. By James Arnott, Surgeon.*

"It is nothing but a vein," says the surgeon of thirty years since, as a copious current of blood follows his knife. "There is so much the more danger," says he of more modern experience, "for the artery you may secure with the ligature, and all is safe, but apply your ligature to a vein and you have phlebitis, and a result frequently fatal." Some years since, serious consequences from venesection were almost always ascribed to unskilfulness on the part of the operator, and unless the artery was wounded, were looked upon as anomalies in surgery. Careful observation has since taught us that the veins possess very peculiar pathological predispositions—that they are far more susceptible of diseased action when wounded than arteries, and that their inflammations, &c. are attended with far more serious consequences. Nothing has contributed so much to warn surgeons of the danger of tampering with these organs as the frequently fatal result which has followed the application of the ligature to the vena saphena, for the cure of the varicose state of the veins in the leg. This subject, however, is one which is yet imperfectly investigated, and the researches of such an individual as Mr. Arnott, in relation to it, must certainly be very valuable. He commences with an expose of the opinions of the various writers who have written on this subject.

Mr. Hunter states that intense and extensive inflammations of veins give rise to the same phenomena which spring from other

inflammations, with this difference, that, when the sides of the vein do not adhere, pus will pass into the circulation, add to the general disorder, or even give rise to a fatal result. He barely hints that the extension of the inflammation along the vein to the heart may, in some instances, be the cause of death. Mr. Abernethy adopts the opinions of Mr. Hunter. He states that *irritation* may probably be continued along the membranous lining of the vein to the heart. Mr. Hodgson, in his admirable work on the blood-vessels, clearly states that the inflammation is often propagated along the lining membrane to the heart, and that the constitutional symptoms which result are of the typhoid character, which may be the result either of the admixture of pus with the blood, or of the extent of the inflamed surfaces. Mr. Travers regards phlebitis as sometimes terminating in the deposition of lymph within the vein, and sometimes of pus; the former producing typhous symptoms, and necessarily fatal, the other generating hectic, not always fatal. Mr. T. says that the importance of the veins in the economy is owing to the extent of surface which they collectively present—greater undoubtedly than that of any of the shut cavities, and to the diffused and disorganizing character of the inflammation. He says that the veins are indisposed to inflame, but when excited, inflame by continuity, and therefore it is that the constitution sympathizes so deeply.

Mr. Carmichael advocates the extension of inflammation to the cava, and perhaps to the heart. M. Bouillard ascribes chief importance to the presence of pus in the blood, and illustrates its effects by appealing to Magendie's experiments of introducing various acrid and putrid substances into the blood. Mr. Ribes hints that the veins and venous blood are first affected in adynamic fevers.

Mr. Arnott rejects all the above opinions as unsatisfactory, and insufficient to explain the phenomena. He proceeds to detail a number of cases, and to deduce from the data which may furnish a theory more consonant with facts, and more satisfactory in its application.

The three first cases Mr. Arnott gives us on his own authority. The remainder are collated from various sources. We shall condense them as much as possible.

CASE I. Sophia Brancher, æt. 25, was bled Nov. 27, 1826, from the left basilic vein. On the 8th, was at work—evening, arm stiff and painful. 9th continued her work with aggravation of symptoms. The two following days unable to use the arm which was poulticed, and on 2d Dec. entered the Hospital. At this time small crust over the wound; inside of arm swollen, red and painful. Face pale and anxious; skin hot, pulse 120; tongue white and moist; great thirst; anorexia; bowels open from medicine. V. S. 16 oz. caused fainting; blood highly cupped and buffed; bad night. 3d, complained of pain and tenderness in abdomen. Pain removed by leeches; 5th, arm easier but inflammation extending. 7th, arm less inflamed; discharging pus and blood from vein; face bad; pulse 104 and small; tongue furred and dry in middle; pains universal, but especially in extremities. 8th, respiration hurried. 9th, better, but countenance very bad. 10th, still improving. 11th, arm nearly of natural size, but limbs painful; evening, respiration laborious; skin cold; bowels much purged; abdomen painful on pressure. 12th, face pale and altered; matter had formed under skin of right fore-arm, without cutaneous redness and 5 oz. were evacuated; left knee swollen from effusion in joint—sunk rapidly and dried on 14th.  *Sectio Cadav.* Inflammation and condensation of cellular tissue of fore-arm and arm; chain of small suppurations in the course of the blood vessels, with healthy pus from elbow to axilla. Axillary and subclavian veins, the cava, and the lining of the heart perfectly healthy; no disease in chest; liver pale and yellowish; other viscera sound. The examination was hurried in consequence of the reluctance of friends; vein first wounded not examined.

CASE II. John Carr, æt 47, was bled Jan. 1st, 1827; returned to hospital next day with pain and swelling about the wound; face pale and anxious; pain frequent, full and hard; pain in chest on deep inspiration. 3d, pulse being full, hard, and 116, was

bled to 20 oz. with deliquium; blood much buffed and crassamentum tough. 4th, pulse full and 105; bled again 20 oz. and blood again cupped and buffed with milky serum. Breathed easier in the evening and thoracic pain relieved. 6th, arm more swollen; pus pressed from orifice of vein; purging and chills at evening. 7th, face bad; great irritability; pulse small and 140; tongue slightly brown and dry. 10th, slightly worse. On 13th, inflammation increasing toward axilla. 18th, fluctuation near insertion of deltoid—punctured, and near 2 oz. discharged, yellow and putrid. 20th, pain in chest; pulse small and 104; wound in vein discharging; no pus; abscess in axilla healing. 25th, attacked with chill; during night had several more; very low; coughs and expectorates pus; delirium, suffocation, extreme irritability. Died 30th, at 6 A. M.

*Sec. Cadav. six hours after death.* Small abscess found between basilic and median-basilic veins opposite wound. Both of the veins were impervious and reduced to a cord-like substance. On tracing the basilic vein upwards, it was found to terminate in an oblong-shaped abscess, about two inches above the original wound in the vein; the surface of it was thick, smooth and irregular—surrounding tissue dense; in the basilic proceeding from abscess was an irregular false membrane, two inches long and terminating in a quantity of fibrine which filled the vein. The internal surface of the heart and large veins appeared healthy and they were filled with recently coagulated blood. A few ounces of serum in pericardium; on surface of heart large white spots; extreme adhesions of pleura; lungs healthy, with exception of two or three vomices; bronchiæ filled with mucus mixed with air; abdominal viscera healthy. Arachnoid membrane, over the hemispheres of the brain, thickened and opaque; serous fluid effused into texture of pia mater; several ounces of yellowish serum in ventricles; substance of brain healthy.

CASE III. Henry Arnold, æt. 51, admitted Jan. 19th, 1827, with old ulcer of leg, was twice bled, and, three days after the second bleeding, wound of vein became painful. 29th, rigors

and heat. 31st, inflammation extended from elbow to axilla; rigors recurred till Feb. 4th, then severe pain and swelling in left knee-joint. Arm easy; thin pus flowed from vein; countenance yellowish; pulse hard, full, 100. 5th, knee much distended with fluid; thigh swollen, painful, red and very hot; superficial veins of knee and thigh excessively distended; pulse soft and 140. 8th, Died.

*Sec. Cadav.* 10 hours after death. Wounded vein thickened, containing pus for about two inches below, and four inches above the wound, where a coagulum of blood was found filling the cavity; above and below these points vein healthy. Arachnoid membrane as in case 2d, also pia mater and ventricles. Cavity of knee-joint filled with tolerably thick pus of an uniformly redish colour. Synovial membrane thickened, rough and very vascular; cartilages much ulcerated, so as to denude the bones. Cellular tissue about the knee loaded with pus; so also that between muscles of thigh. Matter generally diffused and not collected in abscesses; bright yellow serum effused in the rest of the limb.

The remaining cases we deem it unnecessary to give. Their general traits are similar to those of the cases which we have detailed above, and they are well expressed in the summary with which the author concludes their detail, as follows:

*"Secondary Affection in Phlebitis—usually shows itself in from two to ten or twelve days after the injury; when the vessel has been previously diseased, sometimes sooner. The symptoms may be thus briefly characterized.—Great restlessness and anxiety, prostration of strength and depression of spirits; sense of weight at the precordia; frequent sighing or moaning, with paroxysms of oppressed and hurried breathing; the patient at the same time being unable to refer his sufferings to any specific source. The common symptoms of fever are present, the pulse is rapid, sometimes 140—in other respects variable. Often sickness and violent vomiting, especially of bilious matter. Frequent and severe rigors; sometimes 3 or 4 in a few hours; general irritability and anxiety of countenance increase; the manner is quick, and the look occasionally wild and distracted. Incoherent muttering when left to himself, but, on being addressed, sound clear and collected. Features pinched and skin sallow, or even yellow—under symptoms of increasing debility, and at a time when the local affection may appear to be in a degree subsiding, secondary inflammations of violent character, and quickly terminating in effusion of pus or lymph, very frequently take place in situations remote from the original injury; the cellular substance, the joints, and the eye have been affected, but it is more particularly under a rapidly developed attack of inflammation of the viscera of the chest, that the fatal issue usually occurs.—*

Whether this is observed or not, death is always preceded by symptoms of extreme exhaustion, such as those of a rapid, feeble pulse; dry, brown, or black tongue; teeth and lips covered with sordes; haggard countenance, low delirium, &c."

*Morbid Appearances presented in the bodies of those who have died of phlebitis.* In the chest, effusions of sero-purulent fluid in the pleuræ and pericardium, exudation of coagulable lymph on the surfaces of the heart and lungs, hepatization of the latter organ, the infiltration of pus into its tissue, or small collections like pus and lymph. Such appearances presented themselves in ten cases out of seventeen. In three the thorax was not examined; in two the condition of its contents is not noted; and in two no disordered appearances were observed.

In the cellular substance, intermuscular as well as subcutaneous—pus and sero-purulent fluid have been extensively deposited, sometimes in collections like abscesses, at others appearing more like effusion into its cells, than as resulting from the common process of inflammation. These collections occur most frequently in the vicinity of the joints. In two cases pus was deposited under the skin of the opposite fore arm, near the wrist; in one, with inflammation of the knee-joint, into the inter-muscular cellular substance of the thigh, and into that external to the joint of the opposite shoulder; in one, into the intermuscular cellular tissue of the opposite leg, and of both fore-arms in one, into the interfibrillar cellular tissue of the corresponding pectoral muscle, and in another between the external extremities of the two first ribs and pleura.

A disease of the joints, consisting of a most violent inflammation of the synovial membrane, its dissension with purulent matter, destruction of the cartilage and baring of the bones. These changes took place in the brief space of a few days, the knee having been first attacked with pain four days before death, which again took place in sixteen from the date of the injury of the vein. In the eye, opacity of the cornea, injection of its blood-vessels, and destructive changes in its humours and coats occurred in one case.

Besides these affections there were found in five instances, within the cranium, opacity and thickening of the tunica arachoides, effusion between it and the pia mater and increased secretion into the ventricles; in nine the head was not examined; in three no morbid appearances were noticed.

Our author next mentions the opinions of various authors on the rationale of those purulent depositions which occur in the internal viscera and the cellular membrane, and which often follow operations and wounds.

He states that the theory which ascribes these abscesses to a disturbance of the nervous system, is so purely conjectural, as to render it unnecessary for him to discuss it. We are inclined to think that Mr. Travers will hardly relish so contemptuous a notice of the doctrine of constitutional irritation. It is true, as Mr. Arnott states, that we cannot explain the morbid agency of the nerves, in this matter; but this is not a sufficient reason why we should altogether deny the existence of that agency. We know not the *modus operandi* of their healthy action, but

yet we must not deny their vital agency. Mr. Arnott says, "In fact, the only view of the subject supported either by evidence or argument, is that which considers the origin of abscesses and inflammations in remote situations after injuries, as connected with the absorption into the circulation of purulent matter from a wound. That they do depend on the entrance of such fluid into the blood, the consequences which have been observed to follow phlebitis sufficiently testify, and it becomes a question whether the occurrence of phlebitis and the passage of pus from an inflamed vein into the circulation is not, of itself, sufficient to account for the secondary affections of wounds without its being necessary to resort to an absorption of the same fluid from their suppurating surfaces."

Our readers will perceive that Mr. Arnott adopts the opinion that, in phlebitis, the constitutional mischief results from the passage of pus and lymph into the blood. This, however, seems to be but a small part of the drift of his investigation. If (he says) the wounds inflicted upon veins in venesection, in the tying of veins, and in their excision, are so frequently followed by these serious consequences, is it not more than probable that the injuries which are inflicted upon these organs in amputations, extensive wounds of any kind, &c. &c. must often give rise to phlebitis and the whole train of morbid results mentioned above? The principal object of his paper, indeed, seems to be to draw a parallel between the cases of secondary effects resulting from venesection, &c. and those often resulting from wounds and other injuries. He wishes to impress upon the minds of the profession, that phlebitis is a disease of far more frequent occurrence than is generally imagined, and that the fatal result from amputations, wounds, &c. is often to be ascribed to that cause. With a view to this, he brings forward several interesting cases of secondary disease from operations and injuries. To show their analogy to those which we have detailed above, it will be necessary merely to give an abstract of one.

CASE 1. I. R. aged 52, had the left leg amputated, Nov. 18, 1826, on account of mortification of the foot succeeding to a severe bruise from the tread of a horse. *Two veins were necessarily tied*; the wound did not unite; much constitutional disturbance with great depression succeeded, and death took place on the 3d of December.

*Sec. Cadav.* Much sero-purulent fluid in left thoracic cavity, and coagulable lymph on the pleura pulmonalis—small abscess in right lung—capsule of left hip joint distended with purulent matter, and its cartilages ulcerated—similar appearances in opposite hip joint—coats of the saphena vein thickened, and its cavity for the last two or three inches of its course filled with pus unconfined by any lymph.

The author remarks that affections of the viscera are particularly frequent after injuries of the head. Indeed, it has long been known that abscesses of the liver are very liable to result from wounds of the head. This fact has been unsatisfactorily explained on various hypothesis, which are briefly alluded to by Mr. Arnott. He relates cases which present an aspect very similar to that of the cases resulting from venesection, the tying of veins, and from certain wounds. From this resemblance he undertakes to explain the occurrence of such abscesses in various remote parts, and especially the lungs, liver, joints, &c. on the supposition that such injuries are particularly apt to excite inflammation of the veins, the consequent production of pus in their cavities, and the entrance of this into the circulation. This theory he bases upon two cases in which, out of thirty-three, inflammation was observed in the sinusses. We must take the liberty to remark here, that our author, in our view, certainly proceeds upon insufficient grounds. He may suppose inflammation of the smaller veins, in which pus could not be detected, but this is nothing but a supposition, and the explanation which he erects upon it is nothing but a hypothesis.

In concluding our analysis of the work under consideration, we would observe that we consider the facts adduced as clearly disproving the supposition of Mr. Hodgson, that the mischiefs of phlebitis result from the propagation of the inflammation along the veins to the cavæ and the heart. They also nullify the explanation of Mr. Travers—that the constitutional disturbance results from the great extent of surface which the veins present, and the wide diffusion of the inflammation, for, in

some fatal instances, the inflammation extended but a few inches from the injured vein. But what shall we say to the hypothesis adopted by Mr. Arnott? We must declare that in his eagerness to establish his favourite doctrine, he has in every section of his treatise strangely neglected the agency of the nerves. In one instance it is stated that the alarming symptoms from phlebitis became manifest in four hours after the injury. Here surely pus could not have been the author of mischief, as none could have been generated. Through what medium then, except that of the nerves, could the system have been so promptly affected?

Most of our readers are, no doubt, acquainted with a work written about six years, by Mr. Butter, an English Surgeon, on Irritative Fever. He describes a singular epidemic pre-disposition to local inflammation, and general fever of a bad character, on the occurrence of the slightest injury, which prevailed among the labourers in the Plymouth Dock Yard a short time previous. Although those not wounded remained well, yet almost every individual who suffered the slightest scratch upon the hand, arm, or other part, was seized with inflammation of a dangerous character and with alarming typhoid symptoms; most of them died. The train of symptoms was very similar to that described by Mr. Arnott in the foregoing cases. The author referred the disease to an epidemic irritability of the nervous system. This was undoubtedly correct. From the local injury there resulted a variety of constitutional irritation which Mr. Travers calls *reflected*—the constitutional irritation depending upon the morbid predisposition of the system, rather than upon the severity of the local irritation. The fact that this variety of constitutional disturbance oftener results from wounds of veins, than of arteries, and other organs, is perhaps because the veins are more sensitive. Their functions are less mechanical than those of the arteries, and more dependent on their vital qualities. They are more intimately associated with nerves—also with the absorbents (a highly sensitive tissue) both in situation and function, and readily impart their diseases to them. This we think must be regarded as a more satisfactory expla-

nation than that of our author, when we reflect that sometimes all the mischiefs from ligatures of the veins result in a few hours, and before there can exist any pus, and that, on the other hand, large depots of pus are often absorbed rapidly, without the slightest constitutional disturbance.

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## ART. II.

### SELECTED FROM THE MEDICO-CHIRURGICAL REVIEW.

*Observations on Local Diseases, termed Malignant. By Benjamin Travers. F. R. S. &c. Part II.*

[CONCLUDED FROM PAGE 131, No. III.]

5. *Cancer of the Lower Lip.*—"The commencement of this common and well known disease is in the interjacent cellular tissue of the mucous membrane and skin. The enlargement and induration render it conspicuous before the villous surface of the lip cracks transversely, and oozes a thin fluid, then exulcerates and scabs by turns, and ultimately ulcerates deeper and fungates. The patient is generally a healthy male of advanced years, and accustomed to smoking. Pus sometimes escapes on a section of the fungus, but the stool or base of the tumour is hard, granular, or seedy; the skin and mucous membrane and the labial glands, now prominent and warty, are closely compacted together and indurated. As the ulceration proceeds, the induration extends, and the salivary glands beneath, and the lymphatic glands, at one or both angles of the jaw, becomes sympathetically enlarged and tender.

Healing the sore by escharotics, &c. is tried in vain, and the only rational treatment is to remove the disease effectually and freely in its early stage. This is usually done by the hare-lip operation, but Mr. Travers prefers its excision by a full crescent shaped section of the substance of the lip, the commissure of the mouth being left, if possible, and no suture required. The contraction and cicatrization take place remarkably well under a double-headed bandage, passing over the vertex and occiput, so as to keep a little moistened lint or simple ointment on the cut surface; whilst the disuse of suture and ligature obviates a very irritating and objectionable portion of the treatment.

6. *Cancer of the Alveolar Membrane of the lower Jaw.*—This is a rare, but well-marked form of malignant disease, not described in books, as far as Mr. Travers recollects. Mr. Travers' attention was first drawn to it by Mr. Cline, in a case where he met that able surgeon in consultation, and since that period, he has seen it thrice. All the patients were aged persons, and they die of exhaustion from deficient nourishment, pain and repeated hæmorrhages. The following is the graphic description of the malady.

"It commences at the point of reflection of the membrane of the gum on the alveolus, or on the inner side of the gum at the root of the teeth, where the sore mouth, from mercury, is commonly first perceived. Small granular eminences or turbercles are formed, by which the membrane of the gum is raised and thickened into a small lump. The disease begins, in my experience, about the root of the last incisor or bicuspid, and thence gradually enlarges backwards to the middle molar teeth. Ulceration then ensues, the edges of the ulcer fungating and bleeding frequently,—it is slowly, but progressively phagedenic, destroying the soft parts, and ultimately, by ulcerative absorption, the substance of the maxilla, so as even to divide the bone. The adhesive inflammation of the contiguous membrane and soft parts during this process, and the tumefaction of the submaxillary gland give a peculiar elongation, breadth, and bulging of the jaw on that side, which is a characteristic feature of the disease. The imperfect opening and cleansing of the mouth, the difficulty of taking nourishment, and the horrible fetor of the discharge,—the constant gnawing pain with shoots darting upwards to the temple, render this a disease of great suffering. It admits only of palliation by the frequent use of antiseptic and detergent gargles and lotions, as of lime-water, camphor, myrrh, borax, honey, &c. Oxyposphat of iron, and compositions of verdigris and caustic, are of no avail. Sarsaparilla dissolved in milk, boiled bread and milk, animal jellies, and soft nutritive mucilages are best adapted for sustenance and medicine." 243.

7. *Medullary Tumour of the Mouth and Fauces.*—Mr. Travers has seen several instances of fungoid tumour situated within the cavity of the mouth—on the upper maxilla; on the lower maxilla; and more than one instance growing within and around the incisores teeth, and covering the symphysis of the lower jaw.

Extirpation is attended with very free hæmorrhage, and invariably leads to a rapid re-production of the tumour, which proves fatal by impeding, or rather obstructing nutrition. It differs from the scirrhus affection described in the last section, as being a fungous production, not an eroding ulcerative disease.

8. *Cancer of the Tongue.*—"This is not a smooth and firm rounded tubercle, such as is often met with in this organ, but an irregular rugged knob in its first stage, generally situated in the anterior third, and midway between the raphé and one edge. It sometimes, but seldom, extends across the middle line, although it often extends alongside of it. The hardness is unyielding, inelastic, and the mucous surface puckered and rigid. It also gives to the finger and thumb of the surgeon the sensation of solidity, or of its penetrating the entire muscular substance, being perceived equally on either surface. Sharp shoots of pain are felt through the side of the affected organ, towards the angle of the jaw and ear. The disease tends to run backward towards the base or posterior edge. It sometimes acquires great bulk before ulceration takes place, so as to project the tongue from the mouth. In this state a female patient of mine was seen some time ago in St. Thomas's Hospital, in whom the permanent projection of the diseased organ beyond the widely distended lipa was from three to four inches. Life was sustained for a time by nutritive injections. The ulceration often extends from the edge of the tongue to the membrane of the mouth and gums, when the elevated and distended membrane at length gives way, and ulceration is rapid. The surface of the ulcer is very uneven, clean and bright granulations appearing in parts, and in others deep and sloughy hollows. The darting pain is very acute, but only occasional. There is a dull aching always present, and as constant a spitting as in deep salivation. The irritation is such as soon impairs the powers of life. It happens to strong and hitherto healthy persons, for the most part males from the age of forty onwards. There is generally an evening paroxysm of pain, and the nights are much disturbed by the secretion accumulating in the throat, which excites cough. Often the patient is roused by a painful compression of the tongue falling between the jaws. The leaden hue of the countenance, the loss of flesh, and difficulty of taking food, although symptoms of the advanced stage of the disease, are observed long before the appetite or muscular powers fail in proportion. Frequent moisture with mild fluids, as tepid milk and water, or confectioner's whey, is grateful to the patient. Speech is much affected and painful.

"Towards the fatal termination of the disease occasional profuse hemorrhages take place at shortening intervals, and alarm and weaken the patient, who ultimately dies tabid and exhausted, generally with symptoms of more extensive disease of the mucous membrane in other parts." 246.

The period at which the sublingual and contiguous lymphatic glands become affected, as well as the extent of their implication, vary. Local irritation from the pressure of a tooth is an ordinary exciting cause, in the same manner as the pipe in cancer of the lower lip. An accurate diagnosis between this and the other affections of the tongue is an object of paramount importance, from the early and effectual removal by the knife or ligature, when possible, being the only chance for the patient in the genuine scirrhus of the tongue. Mr. Travers, however, has only seen one instance of the operation not being followed by a recurrence of the disease within a twelve-month, a melancholy fact indeed. The needle, when the ligature is employed, (and excision is hardly safe, when practicable) must be passed beyond the centre of the disease through the sound parts, armed with a double thread. The cautery, caustic, and all stimulant applications, even borax, are mischievous; the carbonate of iron and alkaline carbonates are of no benefit, but the black wash, on the whole, is the best application. Mercury, iodine, arsenic, &c. have no permanent influence over the disease.

9. *Cancer of the Antrum.*—"This most disfiguring and destructive disease begins upon the lining membrane, and first shews itself in a bulging of the cheek under and upon the malar bone. The tumour is elevated, circumscribed, and hard, and the integument has a blush of colour. The pain is inconsiderable when the patient is alarmed by the appearance and increase of the swelling. The nostril soon becomes closed on the same side, and the teeth loose; they fall out, or are extracted, and a copious oozing of purulent ichor takes place into the mouth. The introduction of the probe by the nostril or palate is followed by free bleeding. If the alveolus is trephined, a fungus shoots up, fills the opening, and covers the gum. Next, the palate becomes depressed; so that the arch on that side is lost, and either the eye-lids are closed, or the eye protruded; and completely amaurotic in either case. In the mean time the external swelling gains

size, is quite immoveable, and the skin acquires a livid hue. Small veins are seen rampant upon it in great numbers, forming a net-work. There are commonly one or more depressions where the bone is absorbed. These break and discharge pus. The patient suffers a good deal of burning and darting pain. The ulceration extends until the mouth communicates directly with the surface, and fluids escape from the wide opening in the cheek, which is surrounded by a raised thick everted border of granulation; or the opening are less direct and fistulous, in which case the tumour acquires an enormous bulk, and the roof of the mouth is upon a level with the incisor teeth, and compresses the tongue. I have seen the disease extend its ravages in the direction of the nares, and destroy the nostril on the same side, instead of the cheek. It is needless to add, that the distress of the patient from the noisome discharge, which is very abundant, the increasing difficulty of taking sustenance from inability to masticate and fear of choking, the consequent emaciation, and loss of rest from the presence of constant febrile irritation, are soon destructive. Hemorrhages and colliquative sweatings generally hasten the desired event." 250.

Mr. Travers has seen this disease arise in an elderly lady who had large, old, ulcers on both legs, which she avoided healing up entirely, and indeed could not. On examining these tumours, they are found to consist of a chaotic mass of coagula of lymph and blood, holding spiculæ of bone. Patients frequently, but no doubt fallaciously, refer the origin of the disease to the extraction of a molar tooth.

10. *Cancerous Fungus of the Nares and Antrum*.—A growth essentially malignant, but happily rare, to which the common lining membrane is subject. It is a brittle fungus, extremely vascular, growing from the whole surface of the cell, most commonly in the antrum, distending the parietes enormously by its rapid growth, and reproduced again and again with great celerity after masses of it have been cut or torn away, the separation being generally followed by excessive or even dangerous hæmorrhage. It is denominated improperly in Mr. T's opinion, malignant polypus, and is sometimes confounded with the fleshy polypus.

11. *Cancer of the Fauces and Pharynx.*—Scirrhus tonsil, like many other things in surgery, is much talked of but little seen. But the broad papillæ at the root of the tongue, the tonsils, and the mucous follicles of the glottis and pharynx, are each occasionally the proper seats of the disease, beginning in tumour and induration, and terminating in fungus.

“Scirrhus strictures followed by ulceration and cancerous fungus are met with in the pharynx and top of the œsophagus in elderly persons, chiefly females in my experience. They are productive of constant nausea, dry burning sensations in the throat and stomach, difficult breathing, frequent spasms and alarms of suffocation, and excessively impeded deglutition; upon the gentlest introduction of the finger or bougie, hemorrhage follows, which afterwards becomes spontaneous. The patient has a faded sallow countenance, a disturbed circulation, and is emaciated to a skeleton.” 252.

12. *Cancer of the External Ear.*—The ear is rarely primarily affected, but Mr. Travers has once seen the upper third of the external ear the exclusive seat of an indurated sore, having every character of cancer. The diseased piece was amputated, the wound healed, and the patient, Mr. T. believes, remains sound.

13. *Medullary Tumour of the Internal Ear.*—Mr. Travers has seen but one example of this disease. The tumour extended from the temporal fossa to the angle of the lower jaw, and internally to the posterior nares and fauces. The mastoid cells apparently escaped. The jaw became locked; a bleeding fungus filled the meatus; the head, face, and muscles of deglutition were paralysed; coma succeeded; the patient was nourished with great difficulty, and inanition accelerated his death. No post-mortem inspection was permitted.

*Diseases of the Head and Face, sometimes mistaken for Cancer.*

The three first affections described under this head are, the crustaceous herpes, lupus, and a peculiar affection of the integuments of the face, resembling elephantiasis. These affections

being described in the works on cutaneous diseases, we shall pass over here, and stop at,—

4. *Ulcers of the Mucous Membrane of the Mouth and Tongue, Fauces, Nares, &c.*—"From these there can scarcely arise any difficulty in diagnosis. They are aphthous or tuberculous, scrofulous or venereal, or of the herpetic character which I have described as affecting the skin of the nose and upper lip especially, and there forming a scab or crust. I have seen the pits or fissures of the tongue following and even alternating with this herpes of the nose. A lunar caustic lotion, or the verdigris liniment, or the caustic itself in pencil, are the best applications; and arsenic, steel, and sarsaparilla the best medicines. Mercury is decidedly injurious. They are as little venereal as cancerous, but they frequently follow mercury, and are indeed a symptom, among many others, of mercurial scrofula.

"The tongue and lips are not unfrequently the seat of venereal ulcers, as well as the nose and palate. These are secondary sores, with few exceptions. Sometimes however, the tongue exhibits a genuine chancre, although it is not easy to explain the occurrence even among the most abandoned. The appearance presented by the large and deep fissures of the secondary ulcers, with their high edges falling asunder, and the irritable and painful state of the surrounding parts, the sensible increase of destruction from day to day, and the fetid discharge mixing with the saliva, lead some to suppose them cancerous; whilst others—from their invariable aggravation by mercury in any but the mildest form, and unaided by generous diet and sarsaparilla—regard them as cachectic, and the result of mercurial action in a scrofulous habit. The employment of mercury requires greater delicacy both in the time and mode of exhibition in sores, whether venereal or cachectic, affecting the lips, tongue and palate, than similar sores in any other region of the body. In many it is contra-indicated altogether, while to others it is essential, even when the history renders their venereal origin disputable. But to pursue these observations would lead me too far from my subject." 258.

5. *Globular Tumour of the Tongue.*—This is like a marble in size and touch, situated deeply in the substance of the organ, very uniform and unyielding in its surface. It is occasionally mistaken for scirrhus, but invariably disappears under the use of medicines calculated to improve the tone and secretions of the stomach, as the alkalies, with bark and steel. From its complete absorption Mr. Travers supposes it to be a cyst containing an albuminous fluid, but he has never wounded it.

6. *Vesicular and Fleshy Polypi.*—The vesicular, hydatid, or common polypus of the nares is too well known to require description: it is not liable to the suspicion of malignancy. The fleshy is flat, oval, or oblong, like a horse-bean, solid, opaque, and generally has a broader attachment than the former. It is most common in the posterior nares, where it is productive of much inconvenience to the patient. Many may exist together, and being in firm masses they do not break readily.

“Polypi are frequently formed in the meatus auditorius. When springing from or contiguous to the membrana tympani, so as to prevent its vibrations, they occasion complete deafness. There is a vesicular polypus auris, which takes the shape and length of the meatus, and with ordinary caution is extracted entire, like that of the nares. The fleshy is granulated, very vascular, and brittle, lies upon and conceals the drum, and does not grow to any great size, but ulcerates and gleans profusely and offensively. This requires cautious treatment. I never saw any possessing a character of malignity.

“Polypi of both species form in all the cells and chambers of the bones of the face and head. The lachrymal fossa and inner angle of the orbit, above and below the tendon of the orbicularis palpebrarum, is the place next in frequency to the nostril, at which they give external demonstration of their existence. Next to this, the antrum; and, indeed, the disease in the antrum generally presents these appearances in the nostril and at the orifice of the lachrymal canal, before that chamber is bulged externally.

“Polypi occasion the same deformity by their increase in inaccessible situations, as was described in speaking of the malignant tumour of these parts. In the antrum, they protrude the cheek, lift the floor of the orbit, obliterate the nostril, and depress the vault of the palate. In the orbit they protrude the eye-ball, and projecting on either side, fix and compress it in the opposite direction. In the æthmoid, sphenoid, and frontal sinuses they loosen and even detach the bones from their connexion, and occasion a hideous deformity, with paralysis and Æoma, the consequences of serous effusion in the ventricles of the brain.” 260.

Mr. Travers considers both vesicular and fleshy polypus as originally quite free from malignancy, but occurring in the deeper and inaccessible parts they must prove ultimately destructive from their productive and reproductive tendency, progressively

extending from cell to cell, and occasioning by their growth the formidable consequences already narrated.

“The cancerous fungus which I have described as growing from an extended surface, not a point of the membrane of the nares or antrum, and which, by this circumstance, is marked as a truly malignant disease, I have heard surgeons denominate ‘fleshy polypus;’ with which disease it has nothing in common but its effect to distend and burst asunder the parietes within which it is contained. The character of the deep ulcerated openings which form in cases of polypous growth, and the heterogeneous mass left after the process is terminated by death, the sufferings of the patient, the noisome fetor of the discharge, and the frequent and free hemorrhages preceding dissolution, which are incidental, not characteristic, features of analogy, have led some observers to conclude that the disease, although simple in its commencement, has taken on or induced a cancerous action. But I doubt if cancer is ever a consecutive disease; although I know many instances of its being chronic, and of cancer being set up at a particular period of life in persons who were the subjects of other disease, and of local injury, seeming to afford the occasional cause of its appearance.” 262.

This brings the present paper and our analytic labours to a close. The remaining divisions of the subject will be discussed by Mr. Travers at a future opportunity, and when that opportunity is seized we shall take especial care to bring the learned and talented author again before our readers. Our opinion of the merit and substantial value of the memoir from which we are now to part, is stamped in the copious analysis we have given of it; for we may say of our respect for the productions of writers, as the *GIAOUR* says of his passion on his shrieving day:—

“But these are words that all can use,  
I proved it more in deed than word.”

As it is customary, however, in good company, to salute on taking leave, we beg to make our *cong  * to Mr. Travers, and return him many thanks for the instruction we have received in perusing his account of the various malignant diseases of the face and head. We are convinced that if he prosecutes the subject, and describes, as he proposes, the same diseases in the other portions of the body, he will do an essential service to the profession, and no doubt obtain, as he will deserve, its gratitude.

## Abstract of Foreign Medicine.

### SURGERY.

*Prolapsus Ani treated after the manner of Mr. Hey.* Dr. McFarlane has recently related, in the Glasgow Journal, a case of prolapsus of an exceedingly troublesome character, cured by means presently to be described. The bowel always became protruded when the patient remained for a short time in the erect posture, even although no propulsive efforts were made, provided no pressure was made to prevent it. The livid, tuberculated mucous membrane would be first protruded—then the bowel descended, and hemorrhage took place from numerous points. The recumbent posture and gentle pressure returned it. General health much impaired by irritation and hemorrhage. *Integuments around the anus exceedingly relaxed—could be drawn out with the fingers in large flaps.* The operator thus drew them out, and with scissors cut away all the superfluous integument, together with a portion of the loose, tuberculated mucous membrane, which was brought down with it. Pain and bleeding trifling—proidentia recurred at stool for a few days.—Inflammation and tenderness around anus, causing retention of urine and necessity for use of catheter. In ten days could walk about, and void stools without protrusion. It should be remarked that immediately after the operation he was confined to bed, used the T bandage and compress, and took occasional mild laxatives.

*Carotid Aneurism, Artery secured above the Tumour.* A case in which the ligature of the carotid, above the aneurism, was performed successfully, has recently occurred to A. Montgomery, Surgeon, Civil Government Hospital, Mauritius. The subject was a black; tall, spare, intemperate—admitted Feb. 20th,—aneurismal tumour of the size of a pullet's egg, situated immediately above the sternal portion of clavicle, close to bone;—tickling cough almost constant, pain in trachea, mucous expectoration, anxious countenance, hoarse voice, disturbed sleep, emaciated, bowels disordered, for which and for cough, cathartics, alteratives and expectorants were given. Subsequently there was head-ache; fever; pulse 76, full and irregular; tumour increasing and pulsating strongly. V. S. to 10 oz. tart. antim. Tumour increased till March 9th, when it had acquired an alarming size—broad, and ascending nearly four inches upwards to the angle of the jaw, so that the space for operating was small. Mr. M. was encouraged to use the ligature by the successful result of Mr. Wardrop's case reported in the Lancet. It is not necessary to describe the operation, which was done in the usual manner. March 10, after the operation, the patient suffered much from dyspnoea, cough, difficult expectoration, &c. which, however, soon abated; pain in temple gone; pulse 80, soft and full, tongue white, belly slow, pulsation less distinct; every way much relieved. Medicines were prescribed. The patient went on improving, the tumour getting smaller, and the symptoms occasioned by it diminishing, till the 20th. At this time slight hemorrhage from wound which was healed except where the ligature issued. Pulse much excited; pulsation in tumour increased; great agitation; anodyne prescribed. On the

22d. general health much impaired notwithstanding the use of cathartics and soothing means; pulse intermitting; bleeding recurred, but easily commanded. 28th. Tumour appeared enlarged; ligature came away; deglutition difficult. April 3d. Small abscess in cicatrix which discharged through opening left by ligature. May 23th. Tumour much enlarged and threatening to suppurate. 29th. It gave way discharging 8 oz. of fetid chocolate-coloured fluid; compresses and bandages were employed to prevent the apprehended hemorrhage—no sanguineous effusion: The opening being insufficient to discharge the putrid coagula of aneurismal blood, enlarged it; 6 to 8 ozs. escaped. Introduced a finger and removed coagula and tenacious lymph; felt the artery without pulsation—dossil of lint introduced. No blood was subsequently discharged, but patient continued to amend and tumour to subside. June 8th. Aneurism cured, wound on the eve of healing; tumour entirely gone.

*Case of Artificial Anus opening into the Vagina, with a new mode of treatment.*—This case is reported by M. Casaymor. It occurred in a female, æt. 42. After a difficult labour and considerable loss of blood, ten minutes after the expulsion of the fœtus, a fold of intestine issued from the vagina together with the placenta and coagula. It extended to middle of thigh—inflamed, sloughed. A village surgeon applied a ligature to it as high as possible, which caused the whole to slough away. For 20 days feculent matters, blood and pus escaped from vagina. Patient at length began to recover strength, though fœces voided by vagina—usually 2 hours after a meal. Once a month or so, small quantity passed by rectum. On examination Mr. C. found, about an inch below the *os uteri*, an opening through the vagina, leading into the cavity of an intestine. The vagina was rigid and corrugated. Soft fœces issued at the opening. On introducing a finger into this opening, and another into the rectum, he could not bring them into contact, but between the two fingers he felt a hard cord-like substance. This was the lower portion of the intestine through which fœces had ceased to pass. The portion into which the finger passed, from the vagina, was the ileum. After some delay an operation was proposed. The object was to make a direct communication between this adherent portion of the ileum and the rectum. This the operator wished to accomplish by pinching the intervening parts, till they should slough. He accomplished this with a pair of long forceps, the blades so curved and contrived, that they should meet and press an intervening body only at the point. One blade was introduced into the rectum; the other into the vagina, and when closed they pinched firmly those parts which, on the first examination, were felt between the two fingers. The patient was bled and the belly fomented. In two days the object was effected. Fœces passed copiously by the anus and continued to do so, but still the vaginal opening would not heal entirely, and some fœces continued to pass, although hollow bougies, &c. were introduced into the rectum to prevent it. These instruments could not be borne.

*Fungus Hematodes in the Fœtus.*—Such a case is reported in the *Journal de Progrès*, Vol. XIV. Its delivery it was necessary to effect with instruments. It was hydrocephalic, and on the right parietal bone was inserted a large tumour of fungus hematodes, almost as large as another head. It was based in the osseous structure of the cranium, which was cribriform—*dura-mater* sound. The mother of the child æt. 30—the father 80, but both healthy and vigorous. We have never met with a case of the kind before, but our colleague, Professor Potter, has related to us two cases of the same character, which fell under his own observation.

*Cataracts alternating with Diabetes.*—In number 23, of the *Medico-Chirurgical Review*, we find a case of this character. Eliza Bloomfield had suppression of menses at 13, followed by impaired health and great debility, al-

though she grew rapidly in stature. After some time she complained of headache, vertigo, and dimness of sight. Cataracts formed in the short period of 20 days. Medicines were prescribed for the general health, with little good effect. In a few days it was observed that she saw light, and soon could discern objects. This was simultaneous with the occurrence of diabetes. Cataracts rapidly disappeared; discharged 16 pints of urine daily; skin dry; tongue morbidly clean; much emaciated. At length diabetes removed by usual regimen and mued. A few days after she began again to complain of her head; and soon the cataracts completely returned. Again, after a time, the diabetes returned, and again the cataracts disappeared. She at length died of diabetes. This case is very interesting, inasmuch as it proves that the powers of life have far more control over cataract than we had supposed, and should encourage us to attempt oftener their removal by medicines.

[*Journal Hebdom. No. 43.*]

*Removal of a Tumour of the Spiral Nerve.*—We condense from the *Medico-Chirurgical Review*, a case thus entitled—taken from the *Edinburgh Surgical Journal*, for October, 1829—in which it is recorded by Harry Leake Gibbs, M. D. Patient a sailor, æt. 42. Tumour the size of a hen's egg, 4 inches above right elbow joint, beneath the insertion of the deltoid, movable, but connected by a cord above and below. On being handled pain shot along the course of branches of radial nerve. Supposed to have been caused by a blow on the arm long before; remained stationary for 12 years, but had increased for last two. Dr. G. proceeded to extirpate the tumour. On being exposed by the knife, appeared of blueish white colour—lodged in fossa between the deltoid above, triceps behind, supinator longus below, brachialis externus within. He divided the nerve three-fourths of an inch below tumour, which paralyzed the extensors of the fingers, and benumbed the back of the hand and part of fore-arm. Nerve then cut across above tumour, and the whole removed, which caused much pain—nutrient artery tied. The next day constriction of chest and præcordia, pain shooting into neck. V. S. 2 pounds and cathartic. Patient dismissed in a few days with returning sensation and tolerably free use of arm. Tumour found to consist externally of tunic of thickened neurilema lamellated, dense, like tunica albuginea. Under this, to thickness of half an inch, nervous fasciculi diverging and intersecting each other like net-work. Internally, pulpy, striated, greenish-black matter, the striæ running from circumference to centre. Small portion of coagulated blood on one side, in the firmer substance of tumour. Centre occupied by half a tea-spoonful of highly fetid sanies. Whole tumour surrounded by dense cellular tissue.

*Excision of the Elbow Joint.*—Two cases of excision of the elbow joint are reported in the *Edinburgh Journal of Medical Science* for October. The first is not particularly detailed. Patient a female æt. 25; joint carious, seeming to demand amputation; chronic bronchitis delayed recovery. Left the Hospital better in this respect than when she entered it, and with prospect of retaining useful arm. The other patient, a boy æt. 9; most favourable subject—disease, caries from injury. With the knife exposed the extremity of humerus and extremities of radius and ulna—sawed off the extremity of humerus, and with the pliers cut away head of radius and the olecranon. Thought he had removed enough, but on examining the portion of olecranon removed, discovered a hole made by caries which seemed to have been prolonged into shaft of bone. Removed dressings, dissected end of ulna bare, and removed the whole spongy portion, though with difficulty, owing to the connection of the brachius internus. In this case no muscles left undisturbed, except the triceps, and yet, in similar cases, the muscles have so attached themselves as to preserve very perfect motion. In this case, after 5 weeks, patient beginning to gain command of the joint, which is nearly as moveable as ever. He expects a very perfect recovery.

*New Species of Inguinal Hernia.*—Such a case is recently published in the *Journal Hebdomadaire*. Patient, a groom, æt. 27; had been subject for 5 years to a hernial tumour, which had never entirely returned. May 31st—after violent exertion, sharp pain in tumour, which soon became hard, enlarged, painful to touch; colic and nausea; could not be reduced by taxis or any other means. June 2d—Operation performed. Found large mass of omentum with loop of intestine 6 or 8 inches long, at posterior part—omentum sound, intestine inflamed but not gangrenous. Stricture divided—on attempting to reduce intestine, it returned repeatedly with a forcible rebound—succeeded at length with difficulty. Omentum left; V. S. &c. No stool—patient not relieved—still symptoms of stricture. 3d. Died. 5th—Sec. Cadav. Omentum still in sack. *Intestine found not returned, but still lying in the peritoneal pouch, lodged in a cul-de-sac of the membrane, which presented toward the inner ring.* It was discovered that the intestine had issued at a rent in the fascia transversalis, above and upon the outside of the internal ring. It had descended along the cord into the scrotum, and it had also, been pressed upon the internal ring, so as to make a pouch of the sack at that place, bearing in upon the ring. Into this pouch the intestine was pushed in attempting its reduction, and this could only have increased the severity of the strangulation.

It appears to us that the surgeon did not do his duty in this case. He ought to have fairly passed his finger along the intestine, into the abdomen, and not to have been content with merely tucking it out of sight.

#### PATHOLOGY AND PRACTICE.

*Extraordinary and interesting Disease of the Lymphatics.*—The *Gazette de Santé* reports the following, as communicated to the *Académie Royale*, by M. Amussat. A young man, æt. 19, had a swelling in each inguinal region which had been treated, during five years, by compression. The truss caused pain, but he could not walk without the support of the bandage, for the extreme pain which he suffered. On 7th Nov. he awoke with violent pain under right breast and in the groin, and great difficulty of breathing—tumours tender—skin inflamed—no symptoms of incarcerated hernia—remedies ineffectual—died on the 9th. *Sec. cad.* 24 hours after death, tumours found to be deposits of pus contained in very thin cysts, the texture of which was like that of serous membrane. They communicated with abdomen beneath crural arch, and descended to some extent on the thigh, between the fascia and muscles. Peritoneum contained a great quantity of pus which at first was supposed to arise from disease of *psœ* muscles; but on carefully examining the thoracic duct it was ascertained that this canal, as well as all the lymphatic vessels of the abdominal cavity, was filled with pus. M. A. tied some of these vessels, and demonstrated that they communicated with the large depots of pus, and that the canals full of pus, which had been supposed to arise from feculent infiltration into the cellular tissue, were enlarged lymphatics. The tumours in the groins were found to be lymphatic vessels enormously dilated.

On perusing the above, our readers will perceive, that it furnishes a strong fact against the doctrine of Mr. Arnott, which we have criticised under another head. This quantity of pus certainly could not have lingered so long in the lymphatics without some portion of it passing into the circulation, and yet there were none of the symptoms which usually arise from phlebitis. The facts of the case also furnish strong proof that aliments are capable of entering the circulation by other routes than that of the thoracic duct, a doctrine for which we have long contended.

*Poisoning by the Salts of Lead.*—Dr. Thomson, as reported in the *Lancet*, 334, stated before the Westminster Medical Society, (January 16th, 1830,) that he had learned from experiments, that the salts of lead were only poisonous when they were carbonates, or were resolved into carbonates by the gases of the stomach. It is this form that is poisonous to painters. Wine and cider mostly contain carbonate of lead in solution. This he knew to be at variance with the opinions of others, who supposed the more soluble salts to be more deleterious; but they were only poisonous when they act immediately on the extremities of the nerves, which was the case with the carbonate. In hæmoptysis he had given large doses of acetate of lead, with copious draughts of vinegar, for the purpose of preventing its conversion into the carbonate. Where the poison had taken effect, there did not appear to have been any symptoms of inflammation of the mucous membrane of the stomach and intestines; there was only a contraction of the colon. It did not appear to enter directly into the circulation. The vinegar prevented its becoming a carbonate, but did not destroy its sedative effects. His experiments were not yet concluded. He had recently attended a patient to whom he had given six grains of the acetate of lead, increasing it gradually to twelve, ordering distilled vinegar as a beverage—bowels kept open without any purgative. He did not believe that any of the salts of lead were poisonous but the carbonate. He knew a female who had taken a drachm without injury.

It was stated by a gentleman present, that he once knew salivation to arise from taking 16 grs. acetat. plumb.

*Extraordinary Constipation of the Bowels.*—From Johnson's Journal we derive the following notice of the most obstinate and protracted case of constipation on record. Charlotte Council æt. 24, applied at the United Hospital, Sept. 6, having had no stool whatever for 13 weeks—had always been of a costive habit, though, 'till within last year, yielded to moderate aperients. Recently had passed days without evacuations, with but little inconvenience—in Dec. 1826, had pneumonia—then no obstruction. Soon after recovery, swelling was observed in the abdomen, in the situation of the cæcum, with bearing down sensations and redness of the integuments. Dropsy apprehended, but swelling subsided after leeches and a blister. Well for some months. There now took place a disposition to indolence, with reluctance to take exercise—would sit all day without moving. Bowels became more irregular, intervals of 8 or 10 days—less influenced by medicine. Dec. 10th, 1827—passed motion, first after 5 weeks, Jan. 27th, 1828—2d stool after salts and senna, in repeated small doses. Profuse perspiration—urine copious and high colored. No pain, but uneasiness; no enlargement; tongue clean and moist; pulse 80, soft and regular. Latterly, eaten no animal food, and taken only debilitating fluids. Third stool, after nine weeks, March 30th—hard and dry scybæ, like coal. Calomel and colocynth, and epsom salts had been irregularly taken. Right hypochondrium discoloured, dark, swelled and tender; relief derived from fomentations. Another small evacuation, June 8th, like shoemaker's wax, scybæ, consequence of croton oil and cathartic extract—to-bacco enema which produced vomiting of dark, offensive fluid—stercoraceous. After this no stool for 13 weeks. In the mean time elaterium, 4 grs. per dose, croton oil, gamboge and all the powerful cathartics given. Patient emaciated and pale, but not appearing ill; no fever; catamenia regular, sometimes painful, pulse quick, tongue white, little appetite or thirst, skin moist, urine high-colored, belly feels naturally soft, and hard tender swelling still in the situation of head of the colon. Lived of late on bread and milk, 8 or 10 ozs, daily. Various purgatives were given without effect. After fourteen weeks, one stool, hard and solid, with pain. Mouth become sore from cal.; 6 ozs. blood taken—no buff. One stool in about twenty days; another in 18 from this; health much impaired. The bowels now began to be moved more regularly, but only by the action of powerful medicines. She gradually improved, having often,

however, intervals of 20 or 30 days without stools, till Sept. 8th, 1899. The reporter then states that, "she has a healthy and easy stool once in 3 days, and may be said to ail nothing, with the exception of slight recurrent pains of head and side. Small doses of purgative medicines are still continued, and she says she is confident they cannot be yet dispensed with."

*Lithotrity and Lithotomy.*—In the last number of the Medico-Chirurgical Review, the editor glances at a little work, by M. Bancal, a physician of Bordeaux, entitled a "Practical Manual of this Operation," written in the form of letters to a young physician. In letter tenth the author discusses the feasibility of lithotrity in the female. He has tried it in three cases and experienced the greatest difficulty in each. The same difficulty has been experienced by others. He states the principal cause to be the low situation of the neck of the bladder, at its very *bas-form*, in consequence of which, the stone always lodges on the part, and is applied on the opening into the urethra. A French critic remarks, that this must be incorrect, as the elevation of the pelvis ought to remove the difficulty, which it does not do. He supposes the difficulty to arise from the greater transverse diameter of the female bladder, and the depression of its *bas fond* on the sides of the vagina. This seems more probable. At all events, it is certain that this operation is far more difficult on the female than on the male.

M. Bancal also discusses the comparative merits of L. in the male. The facts which he furnishes seem to be sadly at variance with his conclusions. He says that the operation is always innocent—that it is of no more consequence than the introduction of the catheter. It is notorious that the lithotritists have always operated on select cases, those of individuals having but one stone, and healthy bladders, while, as says M. Bancal, they leave to lithotomists to thrust cutting instruments into diseased bladders. The cases on which they operate are those which almost invariably do well under the lateral operation. Eleven patients applied to M. B. Of these, five were subjected to lithotrity; two were cured; THE OTHER THREE DIED OF INFLAMMATION OF THE BLADDER. Two patients supported some attempts and would endure it no longer. Four were lithotomized with success. Where then is the evidence of his success, and of the harmlessness of his favourite remedy?

*Peculiar Affection of the Pericranium—generally relieved by division of the Membrane.*—This disease was first noticed by Sir E. Home. Dr. Abercrombie has furnished, in his work on the Brain and Spinal Cord, an abstract of his opinions. This is copied into the Medico-Chirurgical Review.

In the cases related by Home, the symptoms were head-ache, tenderness of scalp, at a particular spot, with some degree of thickening of integuments. In one case, sight and hearing impaired—in several, fits resembling epilepsy. Treated by incising integuments down to bone, and dressing with lint, so as to heal slowly. Membrane, on cutting, found to be morbidly sensible, and in some hard and cartilaginous. In some cases this treatment was followed by immediate and permanent relief; in others symptoms recurred upon any excess. In some, healed without any affection of bone. In others, bone appeared white and porous, or honey-combed—limpid fluid percolating through it. In one case exfoliated; then healed. In another, exfoliation was hurried by applying nitric acid. In one fatal case, pericranium was thickened into mass of bony fibrous texture, and with it was a similar state of dura-mater within. Most of these cases had been treated by long courses of mercury without benefit, or with injury.

*Vesico-Vaginal Fistula.*—In the Journal Hebdom. No. 58, M. Dupuytren states, that the plan of Dessault, (consisting of the introduction of a catheter into the urethra, and a plug into the vagina, for the purpose of keeping the edges of the fistula as much in contact as possible) has generally failed. He has employed the actual cautery in these cases with great success. He de-

cidedly prefers it to the nitrate of silver. His mode is the following: The patient is placed across the bed, on her belly, with a pillow or two beneath her to elevate the pelvis—her lower extremities out of the bed and held securely. A speculum in two pieces and hollowed like a flute is introduced, and the fistula exposed to view. With an iron of suitable shape M. D. lightly touches the fistula, so as merely to stimulate without destroying the parts. The swelling which succeeds chokes up the fistula for the time, the urine ceases to escape through the aperture, and either cicatrization and obliteration are effected, or the aperture is much contracted in diameter.—Two or three applications of the iron are commonly required, and in order to ensure the free discharge of the urine from the bladder during the process, a catheter may be kept in the urethra. This, however, is rarely necessary. In the Hôtel Dieu the operation has succeeded in a great many instances: The most favourable cases are those in which the aperture is longitudinal—unfavourable when transverse: In the latter, when accompanied with much loss of substance, and a considerable communication between the bladder and vagina, cauterization will scarcely succeed, and it then becomes necessary to resort to other means.

*Hysteria*.—Of this disease we find several interesting cases detailed in Johnson's Journal, reported from St. George's Hospital, with observations by the editor, which accord well with our own views, and which we deem highly important. He remarks that nothing is more necessary in practice than to distinguish hysteria in its thousand forms from the diseases which it apes. "Scarcely an admission day passes over our heads, at this hospital, without affording melancholy proofs of the evil consequences arising from mistakes of this nature. Young women are constantly applying with hysterical and nervous pains, whose complaints have been rivetted, and constitutions shaken, by injudicious and injurious depletion. *We believe that the profession are beginning to discover that calomel and the lancet have been dealt around with a rather too liberal hand, and the various works on neuralgic diseases, at present showering from the press, give promise of a more rational appreciation of the affections of the nervous system.*" He very judiciously remarks, also, that *hysteria is too often an intractable complaint, often resulting in mania, epilepsy, and even palsy.* This remark strikes us the more forcibly because we have recently attended a most formidable and puzzling affection of this kind, which was attended with partial hemiplegia. In this case we began with depletion, being seduced into this method by the extreme pain, occasional fullness of pulse, beating and fullness in the head, &c.; but we found it to be injurious—rather increasing the tumult of the system. Mild tonics, aromatics, anti-spasmodics and anodynes, gave great relief. The following cases which we briefly analyze are instructive.

*Case 1. Cough; pain in the side;—fluttering at the heart;—memorrhagia.*—Mary Pearce æt. 21, single, admitted July 24.—Dry cough on full inspiration, also pain in left hypocondrium, fluttering at heart—can lie on either side—pulse quick, soft—skin moist—urine free and pale—nervousness approaching to hysteric passion—memorrhagia every 3 weeks. Blister to the left side.—Camphor mixture, an ounce and a half. Tinct. of Hyosciam. half a drachm, thrice a day. Milk diet. On the 24th, being heated, took cathartics and salines. On 27th extr. of Colocynth and extr. hyosciam. of each, 5 grains, every night.

*Case 2. Chlorosis—pain in the Chest and Head.*—Cath. Cary, æt 16 ad. May 21st. Pain about sternum; slight cough without expectoration, pains over the head aggravated on rising in the morning; occasional dimness of vision; anorexia—pulse languid—tongue moist and white—bowels rather confined—delicate and chlorotic—never menstruated—ill 2 or 3 months—when her cough has been bad, says she has spit blood. Ammoniated tincture of Iron, half a drachm. Infus. Cascar. ten drachms. Tinct. of Cascar. one drachm, to be taken 3 times a day. Aloes with myrrh 20 grains, every other night.

22d. Shower-bath every morning—pitch plaster to chest. Health slowly improved, but chlorosis continued.

Case 3d. Sarah B. æt 22. admitted June 10th. Pains in the head, and right side of chest, down to osilium; palpitations; flatulence; borborygmi, heart-burn; bowels confined without med. catamenia scanty, appearance hysterical. Had been ill 10 months, *bled, leeches, purged, with aggravation of symptoms.* Blisters afforded some relief. Ammoniated Tinct. of Valer. 1 drachm—Camphor mixt. ten drachms 3 times a day; cold bath. 19th much the same—medicine changed to Tinct. Castor, half a drachm;—Water of Cin. 5 drachms, twice a day. 22d. Catamenia present, medicine discontinued. 25th. Resumed.—28th. Pain in right side of chest, shoulder and hypochondrium—pulse quick and feeble. The mixture of Iron was employed twice a day. 30th. *Scena draught* twice a week. July 17th, blisters for pain of side. These means were successful.

*Influence of Iodine in Bronchocle, Scrofula and Ascites.* Dr. Bardeley, of the Manchester Infirmary, states, in a volume of hospital facts recently published by him, that he has employed the iodine in 30 cases of bronchocle. Of these, nine were cured, (none of them having existed more than 2 years) six received some benefit, and the remainder were not at all relieved. In many of the latter, the iodine was given for many months without the slightest advantage. He says that iodine will undoubtedly be ever regarded as a valuable medicine in this disease, but is by no means a specific. Dr. B. speaks highly of this remedy, also, in the treatment of scrofula. He says that it is equal, if not superior, to any of the numerous substances which are employed in this disease. He has often seen it succeed in removing enlarged glands. He has seen no advantage from its use in paralysis—none in chorea, except in 2 cases. Dr. Manson, it will be recollected, reports many cases successfully treated with it.

In Ascites, depending on enlargement of the liver, iodine has appeared to Dr. B. to be a medicine of great efficacy. Several cases are given in proof. We shall give the facts of one. Edward Placey, æt. 40, entered last of August, 1826, with a considerable quantity of fluid in the abdomen, occasional pain in right hypochondrium; loss of appetite and strength, sallow countenance, thirst, feeble pulse. Formerly intemperate; had been ill 8 months. Removed pain by leeches and blister. Gave 10 gts. of the solution of hydriodat. potass. (30 grs. to an ounce of water) thrice daily. When the blister had healed, half a drachm of the unguent of the hydriodate was rubbed into the skin, over the hypochondrium. In 6 weeks, evident amendment; urine more copious, thirst less, strength improved. Dose increased to 20 drops 3 times a day. In 3 months discharged cured.

Dr. B. thinks, that although it is possible that the benefit, in these cases, may have arisen in a different manner from what he has supposed, or by other means, yet it cannot be doubted that great good was derived from the iodine. In dropsies, arising from organic disease of the heart and large vessels, lungs, schirrous enlargement of the liver, &c., it cannot be expected to be of much service. Dr. B. has used the article in cancerous affections of the uterus and mammæ, without advantage. In giving it internally, he always employs a solution of the hydriodate of potash, half a drachm to an ounce of water, dose 10 drops, twice or thrice a day, increasing gradually to 20. The unguent, used externally, consists of two scruples of hydriodate potass. to an ounce of lard, rubbing in a drachm night and morning. There is danger in urging the dose too rapidly.

*Rheumatism.* It is well known that rheumatism—especially rheumatism of the joints, is liable to be occasionally translated to the heart. Like all other muscular tissues, this organ may become the seat of the rheumatic variety of inflammation; so also may the pericardium, like other fibrous organs. In No. 332 of the Lancet, we find the remarks of Dr. Alison on this subject,

quoted from the Edinburgh University Clinic. Dr. C. states that, in some instances, the metastasis is complete, the disease entirely leaving the part primarily affected, and passing to the heart. In other cases, the disease is imparted to the heart, while the primary affection of the joint, muscle or other organ, remains in all its force. The first variety, he believes to arise from too copious depletion; the other occurs in cases in which no evacuations have been practised. The middle course, therefore, he regards, as the most prudent, and thinks that depletory measures are useful in the commencement of the disease, so as they are not urged to the extent necessary to subdue visceral inflammation; the object being rather to allay pain and febrile irritation, and to assist, as it powerfully does, the action of sudorific medicines. He recommends tart. emet. in diaphoretic doses, and expresses his belief that in the course of four or five weeks the patient would get well under treatment guided by such reflections.

We think these to be very judicious remarks, and are persuaded that much mischief is constantly done by too bold and indiscriminate bleeding and purging in rheumatic diatheses. The symptoms generally seem to be urgent, the pain extreme, the excitement great, and the patient importunes for relief. Under such circumstances, we too often urge our remediate means with too much precipitation. But rheumatism is a form of diseased action which cannot be subdued by a coup-de-main. The enemy is a formidable one, and when we are once satisfied that he is fairly on his retreat, it is better that we should suffer him to retire unmolested, even although he should forage by the way.

*Paraplegia and Apoplexy removed by Nux Vomica and the Moxa.* In the Prov. Med. Gaz. No. 11, is a case of which we give the following abstract. J. R. æt 25, robust and plethoric, seized, Aug. 8th, with sanguineous apoplexy, from which he was relieved on the 14th; 16th, complained of numbness and loss of power in left side—removed by cupping. Next day numbness and tingling—next morning complete paralysis—partial sensibility—pain in loins—pulse 96, rather full; bowels open by med. System under influence of mercury. Cupping and blistering with relief. Sept. 3d, health improved; but loss of power remains in lower extremities, with numbness in upper. Liniment, tonics and light diet, without advantage. 17th, commenced moxas every other day to loins, also nux vomica at first  $\frac{1}{4}$  grain of extract, every six hours, and quinine draught thrice daily. 30th, Improved. Nux vomica cautiously increased to three grains every six hours; moxas daily to loins and along course of nerves; 24th, could walk perfectly well—numbness removed by the moxas, and patient quite restored.

*Use of the Oil of Turpentine.* The Med. Chir. Rev. quotes from the Edinburgh Monthly Examiner a paper by Dr. Moran on this subject. Dr. M. states that, having been afflicted for a long time with intermittent, which refused to yield to the ordinary active means, he resolved to try the efficacy of the Ol. Tereben. as an expulsive and correcting evacuant, a remedy which he had often employed in various affections. The disease was a double tertian—felt the approach of the paroxysm at 7 o'clock P. M. Took two ozs. Ol. Tereben in sugar and water. It created a warm glow in stomach, and through system—not very unpleasant. Kept the horizontal posture to avoid vomiting. From the moment it was taken, all symptoms of the paroxysm disappeared. In an hour produced violent catharsis which lasted several hours. Violet smell in urine for 8 days. After this, treated other intermittents in same manner, with decided advantage. It must be taken on an empty stomach and nothing taken after till catharsis has commenced, when whey, tea or warm broth may be plentifully given. When taken on full stomach, or when food is taken after it, it violently attacks the head and produces a state like epilepsy which he has twice seen, and relieved by

causing to vomit. Dose from ʒoz. to 1 oz. He recommends it (rather empirically as we think) in all fevers, as safe and useful, not to the exclusion of venesection, but after it. He thinks it will take the place of many other medicines. He has been successful with it, particularly in Enteritis, Peritonitis, Rheumatismus and Podagra. He thinks that it would be successful in acute and chronic hepatitis. Its uses in Peritonitis have been for some time known, and were discovered by Dr. Brennan of Dublin. Dr. M. always premises bleeding. Dr. M. also had the good fortune to furnish, in his own person, a case of gout which he treated with his favourite remedy. On the attack he bled, blistered, poulticed, &c.; but the *Ol. tereben.* bore away the palm. He has used it with advantage in hæmorrhoids and in Hemorrhage of the stomach, in Catarrh, in Dysentery, in Paralysis, in Cholera Morbus, with great advantage.

The article is undoubtedly a valuable medicine to excite the mucous membranes, act on the capillaries and equalize excitement, but the above is to be received *cum grano salis*.

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### TO SUBSCRIBERS.

When the publication of this Journal was first contemplated, we hesitated a little, in regard to its form—whether it should be quarterly or monthly. We are now satisfied that we were correct in preferring the latter. Those of our subscribers with whom we have communicated, all express their decided approbation of its present form, and we are happy to state that the encouragement which it receives, is greater than we had anticipated—such as will cheer us to a zealous exercise of our editorial duties. It will be seen that our abstract of medicine is not hastily made up of extracts from other journals, but that the articles are all analyzed and condensed with great care and labour, in order that we may present our readers with as much intelligence as possible, and yet not encumber our few pages with that which is useless to the American reader.

N. R. S.

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### UNIVERSITY OF MARYLAND.

We are happy to announce that Dr. John D. Wells, of Brunswick, (Maine,) was unanimously elected to the chair of Anatomy in the University of Maryland, at a meeting of the Trustees, on Monday, May 3d. This judicious appointment will, we are assured, give great satisfaction to every friend of the Institution.

At the Commencement, held on the fifth day of April, 1830, in the University of Maryland, the following gentlemen were admitted to the degree of Doctor of Physic :

## THESES.

Thomas E. H. Cottman,	Md.	<i>on Dyspepsia.</i>
Thomas Littig, - - -	do.	<i>on Crural Hernia.</i>
Charles H. Bradford, -	do.	<i>on Hydrocele.</i>
John M. Galt, - - -	do.	<i>on Rhus Toxicodendron.</i>
John A. Craig, - - -	do.	{ <i>Muscularity and Physiology</i> <i>of the Arteries.</i>
Richard Brookings, -	do.	<i>Hydrops Pectoris.</i>
John P. R. Stone, - -	Va.	<i>Strictures on the use of Ergot.</i>
Vans M. Sulivane, - -	Md.	<i>Apoplexy.</i>
Jno. Gunby, - - -	do.	<i>Acute Gastritis.</i>
Arnald E. Waters, -	do.	<i>Dysentery.</i>
Charles M. Hubberd, -	Va.	<i>Yellow Fever.</i>
Joseph Browne, - - -	Md.	<i>Bilious Fever.</i>
Thomas Smyth Willson,	do.	<i>Pathology of Inflammation.</i>
Caleb Jones, - - - -	do.	<i>De Alimentorum Concoctione.</i>
Francis Matthews, - -	do.	<i>Ascites.</i>
Robert M. Tutt, - - -	Va.	<i>Cholera Infantum.</i>
Charles H. Matthews, -	Md.	<i>Peripneumony.</i>
Wm. F. Knott, - - -	do.	<i>Cynanche Trachealis.</i>
Jno. A. Sedwick, - - -	do.	do. do.
Thomas C. Hopkins, -	do.	<i>Intermittent Fever.</i>
Rigbie Massey, - - -	do.	<i>Apoplexy.</i>
Wm. G. Thornton, - -	Va.	<i>Pneumonia.</i>
Wm. M. Smith, - - -	do.	<i>Rheumatism.</i>
Robert C. N. Grymes, -	do.	<i>Physiology of the Liver.</i>
Wm. H. Johnson, - - -	do.	<i>History of Medicine.</i>
Jonas R. McClintock, -	Pa.	<i>Vis Medicatrix Naturæ.</i>
Leonard C. Taylor, -	Va.	<i>Phrenology.</i>

- Howard M. Duvall, - Md. *Gastritis*.  
 James Garry, - - - do. *De Prædispositione Hereditaria*.  
 Luke P. Barber, - - - do. *Intermittent Fever*.  
 Wm. T. Williams, - - - do. *Cynanche Trachealis*.  
 Wesley Conaway, - - - do. *Hepatitis*.  
 Wm. E. Piper, - - - do. *Epilepsy*.  
 Horace W. W. Pumphrey, Va. { *Influence of the Mind in pro-*  
   *ducing changes of Sensation*  
   *and Morbid Action*.  
 Joseph Kent, Jr. - - - Md. *Intermittent Fever*.  
 B. W. Pumphrey, - - - Va. *Tetanus*.  
 Henry Schultz, - - - Md. *Rheumatism*.  
 Richard Parran, - - - do. { *Lithiasis and the Operation of*  
   *Lithotomy, with the Scalpel*.  
 John A. Valiant, - - - do. *Phlegmasia Alba Dolens*.  
 Louis A. B. Marchand, - do. *Ascites*.  
 Mahlon C. Price, - - - do. *Tetanus*.  
 Wm. J. R. Brooke, - - - do. *Tetanus*.  
 Jno. H. Sellman, - - - do. *Hepatitis*.  
 Denis Delaney, - - - do. *Tracheitis*.  
 Ebenezer N. Allen, - - - do. *Uterine Hemorrhage*.  
 Edwin Herndon, - - - Va. *Dyspepsia*.  
 Wm. S. Maxwell, - - - Del. *Physical effects of Heat and Cold*.  
 Robert G. Thompson, Ken. *Delirium Tremens*.  
 Thos. J. L. L. Nottingham, Va. *Asthma*.  
 Jeremiah F. Kuhn, - - - Md. *Stricture of the Œsophagus*.  
 Jno. Addison, - - - do. { *Anatomy and Pathology of the*  
   *Mucous Membranes*.  
 Samuel Swope, - - - do. *Cynanche Maligna*.  
 \* Richard Shea, - - - Va. *De Diabete*.

\* To this gentleman was adjudged the premium for the best written theses in the Latin language.

THE  
**Baltimore Monthly Journal**  
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VOL. I.

June 1830.

No. V.

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**Original Essays.**

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ART. I.—*Case of Compound Fracture of the Femur. By B. Ticknor, Surgeon, U. S. Navy.*

IN the month of July, 1827, while the Frigate *Macedonian* was lying in the harbour of Rio Janeiro, an American vessel arrived there, and I was requested by the Captain to see one of his men who had fallen from aloft nearly five days before, and was severely injured. I went immediately, and found the man, (whose name was John Ashburn, and who was about twenty-seven years of age) in a truly wretched condition. He was lying on deck, apparently much exhausted, and suffering great pain; and my attention being directed to the injury, I found the left lower extremity, from the foot to the hip, very much swollen and inflamed, and the thigh considerably hurt; from which it was evident, that there was a fracture of the femur, and by removing a strip of canvass, which had been put around the thigh, I discovered that the fracture was compound. On removing the oakum which had been applied to the wound, the entrance of it was found to be nearly closed by the larvæ of

the fly; some of which were of such a size, as to have aggravated considerably the patient's sufferings. It has been mentioned, that the accident happened nearly five days before, and the vessel being small and destitute of accommodations, the patient had been obliged to remain on deck, exposed to the weather, during the whole of this time. Owing to the ignorance and inattention of the Captain, those means to which common sense alone would direct one's attention in such cases, had not been employed; and nothing more had been done, than to apply a little oakum to the wound. The fracture was about five inches above the knee, and was very oblique. The wound was on the outside of the thigh, and was probably made by the upper fragment of the bone.

As might well be supposed, the patient had suffered extremely during the time that he had remained in this situation; and he was so much exhausted by pain and fever, which had been greatly aggravated by the motion of the vessel, that there appeared but little probability that his life could be saved. The whole limb, as has been mentioned, was very much swollen and inflamed; there was evidently considerable displacement of the fractured extremities of the bone; and a profuse discharge of a thin sanies had taken place from the wound.

There being a large and commodious Hospital at Rio, into which foreign seamen are admitted free of expense, it was proposed to the patient to be taken there, where it was believed he would have a much better chance for his life, than he could have on board our ship, especially as we were expecting soon to go to sea. But he had such a dread of the Brazilian Hospital, from the reports he had heard; and was so anxious to be removed to the ship, that I was induced, with the approbation of the Comodore, who manifested much sympathy for the poor fellow, to have him taken on board.

It being evident from the state of exhaustion to which the patient was reduced, and from the swelling and inflammation of the limb, that the only chance of saving his life, consisted in an

attempt to save the limb, the measures proper for this purpose were immediately employed. The patient being placed in a cot on the deck, the fracture was reduced, or at least as nearly so as circumstances would admit of, and the limb was secured by means of an apparatus similar to Boyer's, which I had ready at hand. Dry lint was applied to the wound, and secured by adhesive straps. The patient was now put into a boat and taken on board the Frigate, and his cot swung between the second and third decks, in the place appropriated for the sick; where he was least affected by the motion of the ship, which, even in a harbour that is but little exposed to the influence of the wind and sea, is sufficient to cause uneasiness to a fractured limb, unless carefully guarded against.

The patient bore his removal without complaining, and he now experienced great relief from his sufferings; but such was his state of debility and exhaustion, and so profuse was the discharge from the wound, that it was necessary to have immediate recourse to tonics. Bark, wine, and opium, were administered as freely as the stomach would bear; and their beneficial effects soon began to appear, in an increase of strength, a return of the appetite for food, and in the increased strength and fulness of the pulse. The limb was kept constantly wet with an evaporating lotion, and the swelling soon began to subside; and the discharge at the same time began to assume a more healthy appearance, and to diminish in quantity, though it continued rather profuse for some time longer. The swelling and soreness of the limb rendered it impossible to make such a degree of extension as to restore it to its natural length, and bring the fractured extremities into exact opposition; but a slight degree of it, sufficient to prevent any farther shortening, could be borne without inconvenience, and this was kept up by means of the apparatus that has been mentioned.

For about two weeks the patient continued to improve as well as could be wished; and there seemed to be a probability that his cure might progress without interruption. His general

health, indeed, had improved so much during this period, that before the end of the second week, the tonics were discontinued; and a great improvement had also taken place in the condition of the limb. But at the time to which I now refer, that is, when the patient had been about two weeks on board, the ship went to sea, and remained out upwards of fifty days, during which time, very little progress was made towards recovery. Soon after we sailed; he began to complain of pain in the knee of the fractured limb, which now became considerably more swollen than it had been, and so excessively tender, that he could not bear even the slight degree of extension, which, till this time, had been kept up. By the use of cooling lotions, however, the swelling subsided in the course of a few days; but so much tenderness remained, that it was impossible to renew the extension again to such a degree as to answer any useful purpose. It was, therefore, wholly discontinued, but the apparatus was kept on for the purpose of preserving the steadiness of the limb.

Soon after the swelling of the knee had ceased to occasion the patient much uneasiness, he was attacked with peritoneal inflammation, which, though not very severe, rendered him extremely restless, and greatly aggravated his other sufferings. He was relieved, however, in the course of a few days, by means of calomel and opium, fomentations and blisters, and again restored to a comfortable state, and seemed to have a prospect of making some progress towards recovery. But this was of short duration; for he soon sunk into such a state of debility, as threatened to prove fatal, and required all the aid that tonics could afford. By the diligent use of these means, however, he was recovered from this state in the course of a few days; and from this time, although he afterwards suffered several slight attacks of abdominal disease, his general health continued tolerably good during the rest of his confinement.

Such was the state of the patient's health when we returned from sea, about the first of October; and although some improvement had taken place in the fractured limb, yet much less

progress had been made towards recovery than was anticipated at the end of the second week. The swelling had, indeed, in a great measure subsided, and the wound had closed; but not the least advance had apparently been made towards re-union.

After remaining about three weeks at Rio, we sailed for the River Plate, where we arrived early in November. Although the patient's general health continued tolerably good during this time, and notwithstanding the wound remained closed, and the limb was so well secured by means of the long splints, as to prevent any motion of consequence between the fractured extremities; yet, when we arrived at the River Plate, more than three months after the accident, there was no evidence that re-union had commenced. Before the end of the fourth month, however, it was evident that it was beginning to take place, and it continued to advance until it was completed; though so slowly, that it could scarcely be perceived from one week to another. Soon after it became evident that the process of re-union had commenced, the wound, which had appeared to be permanently healed, opened again, and caused considerable apprehension for the safety of the limb. After the wound had remained open about a month, and the patient had suffered a good deal of pain and irritation, a fragment of bone was discovered at the bottom of it, which was removed by enlarging the wound, and was found to be about three-fourths of an inch long; was very rough, and comprised about one half of the circumference of the bone. The wound now ceased to be troublesome, and very soon healed.

By the end of the fifth month the limb had acquired so much firmness, that the patient was able to be taken out of his cot and set up a short time; but it was a month longer before he could begin to bear any weight on it. The knee remained swollen and stiff for a long time; indeed, it was twelve months before the patient had regained the free use of it. There was a shortening of the limb of an inch and a half, or two inches, which was much greater than it probably would have been, if

it had not been necessary to discontinue the extension on account of the affection of the knee.

On the passage home, the patient had the small-pox in a confluent form, and for some time was in great danger of being carried off by it; but at the time of our arrival in the U. States, (Nov. 1828) he had nearly regained his health, and the fractured limb had become as strong as the other; so that he was able to walk about with but little inconvenience.

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ART. II.—*A Case of Gonorrheal Ophthalmia cured by the external application of Balsam Copaiva.*

PROFESSOR SMITH,

Sir,—Should you deem the following case worthy of public notice, you are at liberty to insert it in your Journal.

On the 16th March, 1830, I was requested to visit the daughter of ———, æt. 4 weeks; who was represented to be afflicted with sore eyes. On calling upon the patient, I found her labouring under Ophthalmia in a most aggravated form. The eyelids were very much swollen; there was great aversion to light, attended with a discharge of a yellowish matter, similar to that which issues from the urethra in gonorrhea; the condition of the cornea could not be ascertained. This disease manifested itself about the second week after birth. The old lady who officiated on the occasion, attributed it to a severe cold which the mother had suffered previous to her confinement. But I was not disposed to agree with her, for I was well acquainted with the character of the child's father, and suspected he had communicated gonorrhea to his wife, and that the child had contracted the disease during labour. On inquiry, I learned that both of them had had the disease for several months, consequently I was correct in my supposition respecting the cause of the disease. The difficulty now presented itself as to what

plan of treatment I should pursue; for, this being a disease of a specific nature, would require more than ordinary treatment. In order that I might have a little time for reflection and to examine some authorities on the subject, (for I must acknowledge I was at a loss to know what to do,) I prescribed merely a gentle purge of rhubarb and magnesia.

18th. There was no alleviation of the symptoms. The medicine operated kindly. Directed the following collyrium. Sulph. Zinc. gr. i.—Aq. oz. i.; to be used twice or three times a day—aperient mixture once a day.

20th. I found my little patient no better. I knew, unless I could arrest the disease very soon, loss of sight would be the consequence. Recollecting that the eye and the urethra were lined with membranes of a similar nature, and that there could be no difference between their diseases arising from the same causes, I was determined to try the effects of the Balsam. I prescribed Bal. Copaiv. gtt. i.—to be introduced into each eye, twice a day.

24th. The discharge was not so great, the swelling had sufficiently subsided to enable me to examine the eyes, which were highly inflamed; intolerance of light still continues.

The balsam produced great distress, so much so that the child cried for some time after its application. As there was some amendment of the symptoms, however, I was induced to continue it. Directed: Balsam, one part—Ol: Oliv: two parts—one drop three times a day to each eye.

30th. The eyes presented their natural appearance, with the exception of a slight opacity of the cornea—the pupils, however, perfectly visible. Prescribed the Zinc Collyrium—and Vin. Opii.

April 16th. Discharged the patient cured.

I am now treating the father for the disease situated in its proper place. The mother is well.

Yours, respectfully,

ISAAC COLE.

ART. III.—*Experimental Inquiry into the causes of the Spontaneous Cessation of Hemorrhage from Lacerated Arteries.*  
By N. R. Smith, M. D.

The opinions which have been stated by various surgeons, relative to the spontaneous cessation of hemorrhage from lacerated arteries, are exceedingly vague and contradictory. From this we may infer that the subject has not been thoroughly investigated by experiment. M. Richerand states, that large arteries, when ruptured, become closed (*se reserrent*) partly in consequence of the chill which they suffer, producing spasm; and partly by the pressure which the muscles within which they retract exercise upon them.\* M. Delpech states, that when a limb has been torn from the body, the principal artery is sometimes broken within the parts of the stump which have resisted the violence, and sometimes within the lacerated limb, so as to hang out at the wound. In neither case, he says, is hemorrhage apt to take place. He has so much confidence in the security of the vessels, that he advises not to seek for them, in treating lacerated wounds, unless they bleed.† Mr. Charles Bell says, "A torn artery does not bleed. I have heard it affirmed that, in this case, the blood was stopped by the rugged portion of the inner coat of the vessel, which is torn into shreds by the violent elongation of it. It has been said, if we disclose the radial artery of a dead body, and, putting a probe under it, tear it forcibly, the inner coat will present an appearance of valves to intercept the flow of blood. I believed in this statement, but, upon the experiment being repeated, I found that in a young and healthy artery, the change could not be exhibited." Professor Gibson asserts that the indisposition manifested by a lacerated part to bleed, is owing to the injury sustained by the nerves, not only in the immediate vicinity of the wound, but to a greater

\* Nosographic Chirurgicale, tom. 1. p. 70.

† Précis Maladies Chirurgicale, tom. 1. p. 188.

extent around than the eye can discover. Hence the arteries are paralyzed, and do not contract to propel the blood, which coagulates in their cavities, or among the torn muscular fibres.\*

It is apparent, therefore, that the mode in which hemorrhage from lacerated arteries is arrested, is by no means an established principle in surgery. For the purpose of furnishing facts which may aid to render it such, the following experiments were instituted:

*Experiment 1.*—Having exposed the femoral artery of a young slut, not fully grown, I passed a smooth iron hook under it, and lacerated the organ with a sudden pull. Blood immediately gushed from it in a rapid stream, and continued to flow copiously, for about four minutes. At the end of that time, the blood on the table began to coagulate, and, simultaneously, the bleeding began to be less impetuous. It gradually diminished, and in ten minutes had ceased altogether. The animal was then shut up, but suffered to move about the room. No bleeding recurred. At the end of twenty-four hours she appeared quite well, moved the limb with freedom, and took food greedily. She was then killed with prussic acid. On examining the limb it was found slightly swelled. Blood was injected in small quantity into the common tissue, and a coagulum was formed in the sheath around the artery. The upper extremity of the artery was not retracted between the muscles, but was quite superficial. The external coagulum did not exercise much pressure upon it, for its extremity was larger than natural. I then dissected the artery from its sheath, to the extent of three or four inches, and opened it longitudinally, from above downwards. Two inches from the wound I encountered a slender coagulum which increased in diameter as I traced it downward, and which completely stuffed the organ for one inch from its orifice. The external coat presented a lacerated margin which, however, had become somewhat indistinct by the effusion of lymph. The in-

\* Gibson's Surgery, vol. 1. p. 92.

ternal coat was lacerated transversely in many places. Into many of these, slips of the internal coagulum were inserted; the blood which had issued from the fissures, appeared to have incorporated itself with that which filled the vessel, and thus to have at first attached the coagulum. From many other fissures a very apparent quantity of lymph had been effused—had blended itself with the coagulum, and fixed it so firmly in its place, that it was difficult to scrape it away. The artery was so firmly stuffed with the coagulum as to be considerably dilated. Not a drop of blood could possibly have escaped from it in this state.

*Experiment 2.*—The carotid artery of a full-grown dog, of large size, was exposed on the left side of the neck, and lacerated as before. The artery broke deep in the chest, and bled for five minutes with great rapidity. The animal then gave signs of fainting, but they soon disappeared, and the blood quickly ceased to flow. He was suffered to live four hours, during which time there was no bleeding. He was then killed, and while dying he struggled very violently, but there was still no bleeding. The chest was then opened and the artery traced from its origin. It proved to be a branch of the innominata. Its internal coats were broken at its very origin. The external tunic was broken at the distance of an inch and a quarter from the innominata, the internal coats were withdrawn from within the external, which formed a loose pouch projecting from the innominata and stuffed with a firm coagulum. In this case there was no lymph effused, time enough not having elapsed. The external coagulum was voluminous and firm, occupying the interstices of the adjacent organs, and extending to the external wound. It had not, however, made pressure enough to interfere with respiration. The cervical portion of the broken artery was hanging from the wound, to the extent of two inches. This had also bled freely, at the moment of the rupture, but had soon ceased to do so. Its internal coat was ruptured transversely at many places, to the extent of three inches. Near the ex-

tremity it was filled with a coagulum which adhered to the transverse fissures in the internal coat. It must have been, of itself, an effectual barrier against the effusion of blood.

*Experiment 3.*—I procured a horse twelve years of age, of pretty good constitution, though very lean, and having cast him upon his side, laid bare the carotid. I then passed a smooth iron under the artery and broke it as I had done in the previous experiments. The blood gushed in a torrent from the wound, and, in a few minutes, the animal lost two or three gallons. In about ten minutes the blood upon the ground began to coagulate, and then the diminution of the rapidity of the current was manifest. The extremity towards the chest hung out at the wound, to the extent of three inches. While the blood was flowing rapidly the animal moaned once or twice, as if faint, but soon after, he rose from the ground without difficulty, and stood till the blood had entirely ceased to flow, which was after about thirty minutes from the time the artery was ruptured. The projecting artery was then returned to its place and the wound closed. The animal was suffered to live for twenty-four hours, during which time he appeared nearly as vigorous as before the operation, and took food with avidity. He was then killed by a blow on the head, but, while dying, he struggled very violently. Blood gushed from small vessels in the wound, and I feared, at first, that the obstructions in the artery had given way. But on examination I discovered that not a drop of blood had issued from either extremity of the artery. The lower portion of the artery was found perfectly naked, to the extent of three inches from the rupture. Beyond this its sheath was occupied with a coagulum of blood as was also the common tissue in the vicinity. No lateral pressure, however, was exercised on the artery to impede the passage of blood, as the organ was even increased in volume. The interior of the artery was found plugged with a coagulum six inches long, which completely filled its cavity for nearly its whole extent. The internal coat, as in the preceding experiments, was ruptured transversely at a great many places,

and little productions of the internal coagulum were inserted into them so firmly that they must have securely fixed the coagulum as soon as coagulation had taken place. From many of the fractures in the internal coat lymph, in quantity, had been effused, and become blended with the coagulum, which was thus so firmly attached to the surface of the organ that it required an effort to detach it. No blood could possibly have passed through it, and as the coats of the artery every where retained their vitality, no secondary hemorrhage could have subsequently occurred. The accompanying Plate accurately represents the preparation which I made of the parts by slitting open the artery longitudinally and leaving the coagulum in its place.

Figure 1, marks the entire artery; figure 2, the coagulum; figure 3, the internal surface of the organs marked with the transverse fissure in the internal coat; figure 4, the point at which the thyroid branch was given off. Hence the coats were much lacerated and a great quantity of lymph was effused, sealing up the organ.

*Experiment 4.*—The carotid of a large dog was laid bare, raised with a hook from its sheath, and divided. Its extremities then retreated into the sheath. The gush of blood was impetuous, but, at the first moment, little if any more so than when, in experiment 2d, the artery was torn. There occurred no abatement in its force, however, till the animal fainted, which was after five minutes. The bleeding then almost entirely ceased for a moment, but presently returned, and in less than ten minutes the animal expired. The abdomen of this dog was then opened, a hook was passed under the aorta and the vessel was broken. The organ being dissected out was then examined. Its internal coat was ruptured, precisely as by similar means in the other experiments. In some places it was peeled up from the middle coat, so as to form pockets on the side of the artery; but this was the only instance in which I found any thing of the kind.

*Experiment 5.*—I opened the abdomen of a large dog, and having exposed the aorta above its bifurcation, I attempted to break it in the manner mentioned above. The flow of blood was very rapid, and this, together with the irritation necessarily produced from the exposure of the abdominal organs, rapidly prostrated the powers of life, and the animal died in about five minutes. There was, however, an ineffectual effort at reaction. No other result could have been expected in this experiment, because the bleeding was so copious as to destroy life before coagulation could be effected. On examination I found that the aorta itself was not ruptured, and that the laceration had taken place in the external and internal iliacs. The blood, therefore, had flowed from several large trunks, a wound of either of which is ordinarily fatal. I was surprised to find, however, that each of the lacerated arteries had its orifice closed with a coagulum, which had probably been formed *in articulo mortis*. The internal coat of each was lacerated as in the other experiments, and a portion of the external coat, in every instance, projected beyond the lacerated margin of the internal coats, to the extent of half an inch or more. The extremity of each artery appeared enlarged and bulbous from the presence of the coagulum within it, adhering to its rough, cellular surface. I was persuaded that, had not the flow of blood been so rapid as to destroy life before coagulation could be completed, this animal would not have perished immediately.

The above experiments will, I think, justify the following conclusions:

1st. That Dr. Jones errs in ascribing the cessation of hemorrhage from lacerated arteries mainly to the same causes which avail against bleeding from divided arteries. In the experiments detailed above, the retraction and contraction of the organ availed nothing. The same was true in regard to the external coagulum, which according to Dr. Jones is the principal agent. In each of the experiments, the extremities of the vessel were rather dilated than constricted or compressed. In one instance

(*Exper. 3.*) the artery hung naked from the wound, and yet the bleeding ceased as promptly as under other circumstances.

2d. Equally untenable in the doctrine that the artery is paralyzed by the shock inflicted upon its contractile tissue, and that the blood refuses to flow through a passive tube. In every experiment there was extensive injury inflicted upon the artery, and in one, the organ was torn from the surrounding parts to a great extent; consequently its vital intercourse with them must have been for a time interrupted, and its own actions suspended. This paralysis of the artery should be most perfect instantly after the injury; but we find that the blood then flowed in a rapid stream, which was undiminished till it had time to coagulate. It is true that in those cases on record in which limbs have been torn from the body, there has been, even at the moment after the injury, no considerable bleeding. But this has undoubtedly arisen from the shock given to the general system, and the suspension of the action of the heart, till the blood had coagulated in the extremity of the artery.

3d. Although the pockets, or valves mentioned by Mr. Bell, were in one experiment formed on the sides of the lacerated vessel by the rupture and partial detachment of the inner coat, yet these were not found efficient in suppressing hemorrhage in a single instance, when the experiment was performed on the living animal.

4th. The efficient, and almost only cause of the cessation of hemorrhage from lacerated arteries is the unequal laceration of the external and internal coats. Generally the internal coat is fractured transversely at numerous places, so as to present an indefinite number of small fissures, into which the blood of the artery is injected, and thence, perhaps, conveyed by interstitial absorption into the arterial tissues. Blood, also, probably flows from the ruptured tissue, and mingles with that in the cavity of the artery. As soon as coagulation begins to take place, blood concretes, probably first on the fissures produced in the internal coat, attaching itself to the rough surface which is there pro-

duced, and insinuating itself into the interstices in such a manner that the coagulum becomes so firmly fixed as to resist the impulse of the circulating blood.

When an artery is smoothly cut, and the integrity of the inner coat is uninjured, the coagulum finds no point-d'appui, or roughness upon which it can take hold. The surface is every where polished and lubricated for the very purpose of facilitating the passage of the blood, and therefore the internal coagulum, as it forms, either glides from the artery, when the organ is very large, or perhaps does not form at all, the particles finding no rallying point within the vessel. But when the internal membrane is extensively ruptured, the blood must necessarily concrete upon the lacerated surface, precisely as it is uniformly observed to do in other wounds.

In some instances the complete separation of the internal coats will take place at some distance from that of the external, or cellular, which will then hang as a loose pouch from the end of the more rigid middle coat. Its surface being cellular and lacerated, the blood, rushing along it with force, is injected into this tissue, coagulates upon it, and attaches itself firmly to it. The external coagulum, which forms in the lacerated sheath, will then aid to sustain the internal coagulum and suppress the hemorrhage.

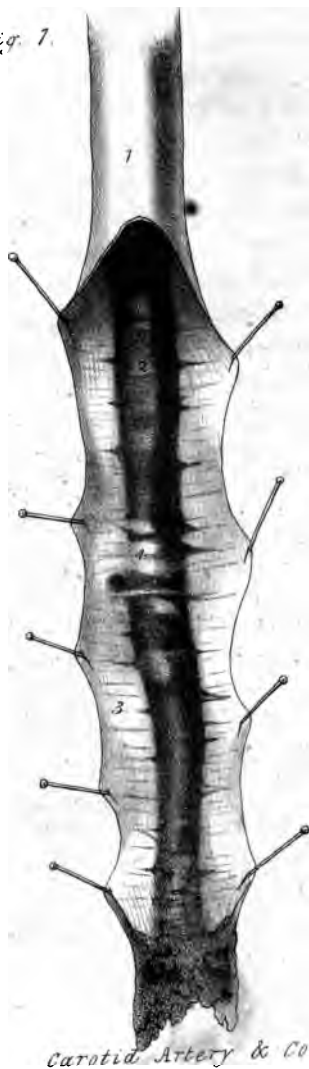
After the internal coagulum has remained attached for some hours to the fissures produced in the internal coat, from each one of the ruptures there takes place the effusion of lymph. This still more firmly attaches the coagulum to the internal surface of the organ, and the more effectually stuffs its cavity. Finally it takes the place of the coagulum of blood, and obliterates the cavity of the artery.

It may be asked, if nature resorts with so much uniformity, precision and effect, to these means for suppressing hemorrhage from lacerated arteries, how does it occur that fatal hemorrhage should so often result from the rupture of arteries which are broken without a corresponding rupture of surrounding parts and

of the skin? These injuries are sometimes inflicted on large vessels in effecting the reduction of old dislocations. Many cases of the kind are on record. The probability is that arteries thus yield in these instances, sooner than the surrounding parts, because they are diseased and brittle. The external coat having lost its extensibility in consequence of the deposition of lymph in and around it, breaks abruptly without effecting the laceration of the internal coat at more than one place. Besides, we know that when there is no external wound, effused blood does not coagulate with facility, and remaining fluid, opposes no obstacle to fatal hemorrhage. If Mr. Scudamore's explanation of the coagulation of blood be correct, it ~~cannot~~ to coagulate promptly, under these circumstances, because ~~it~~ cannot exhale its carbonic acid.\*

\*Scudamore on the Blood.

*Fig. 1.*

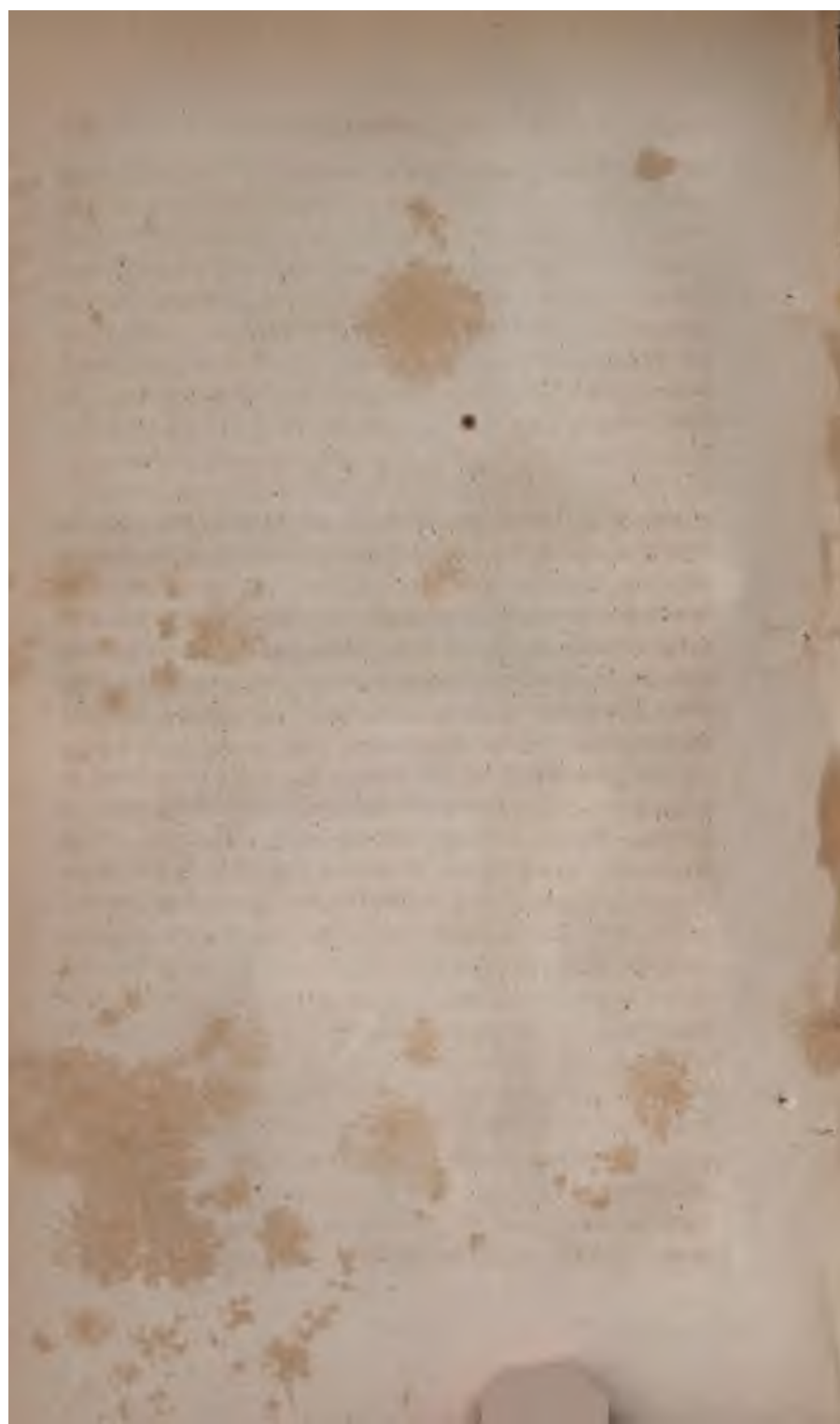


*Carotid Artery & Coagulum.*

*Fig. 2.*



*Worm  
from the Heart of a Dog.*



## Adversaria.

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### ART. I.—*Worms in the Heart.*

Mr. Wm. H. Selby, of Worcester County, Maryland, at present my pupil, has furnished me with specimens of a species of worm found in the heart and pulmonary arteries of a dog. The animal had been afflicted with a severe cough for a year previous to his death, and had had occasional paroxysms of hæmoptysis, attended with much embarrassment of the respiratory function. He at length died from pulmonary hemorrhage, and from inflammation of the thoracic viscera. Mr. Selby made a post-mortem examination of the body. The lungs were found to have been highly inflamed and engorged. There was water in the thoracic cavity, in considerable quantity. The pericardium was healthy, and there was no unusual quantity of fluid in its cavity. There was nothing unusual in the external appearance of the heart, except that it was considerably hypertrophied. On laying open the right ventricle, it was found more than half full of worms, something resembling the human lumbricus.—They were of the length of fourteen inches, slender, pointed acutely at each extremity; and extending through half the length of each an intestine could be discerned. The body of the worm was white and very firm—of almost ligamentous hardness. Those found in the ventricle were rolled up in three or four distinct coils, five or six in each coil. The auricle, also, contained them, and the pulmonary artery was stuffed with them. Tracing the pulmonary artery to its ramifications in the

lungs, the animals were found in many of its branches. It was also discovered that many of them were lodged in the substance of the lungs, chiefly in one cavity, which was near a large branch of the bronchus. There was one portion of the external surface of the lung, of the diameter of twelve lines or more, which seemed perforated with many foramina, as if it had been pierced by worms. None were found, however, in the cavity of the pleura, but the foramina were found, on dissection, to lead to a cavity in the lungs where they were lodged. None were found in the pulmonary veins.

I have in my possession a portion of the pulmonary artery and between twenty and thirty of the worms. Mr. Selby informs me that all which were found would have filled a half pint measure.

There are other cases on record in which worms have been found in the heart—some given on the authority of Senac, but I am not able to discover one in which these animals so completely made the cavity of the organ their home, and multiplied to such a surprising extent, inhabiting the heart for a year or more, and at last causing the death of the animal.

Is it possible that the embryos of these animals were inhaled by the dog, entered the lungs, perforated the vessels of those organs and thus reached the heart? If this be regarded as irrational, then is the question settled, in regard to the entrance of the eggs of these animal into the circulation.

N. R. SMITH.

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**ART. II.—*Interesting Fact demonstrating the influence of the Chloride of Lime in neutralizing Miasmata.***

Mr. Joseph Patterson, of this city, acquainted the editor of this Journal with the following fact, which appears more conclusive than any thing with which we have met, relating to this subject. Mr. P. is the proprietor of a flour mill, on the Gun-

powder river, a few miles from this city, located in a low and marshy situation. The lower apartment of the mill, containing the machinery, is paved with stone, a plank floor which was first put down having decayed very rapidly, in consequence of the extreme dampness and warmth of the place. Flour, from the upper apartment of the mill, sifts through the floor in some quantity, and readily undergoing putrefaction, may be supposed to have produced all the mischiefs which arise, from vegetable fermentation. The apartment was very offensive to those employed in it, and the workmen soon discovered that every one who worked in it, in repairing the machinery, for three hours, was invariably attacked with some form of intermittent or bilious fever. At length it became very difficult to prevail upon men to enter the room at all, and its bad reputation had become a serious evil. At this time the intelligent proprietor saw some statement relative to the antiseptic virtues of the chloride of lime, and immediately procured a quantity, and, from time to time, had it sprinkled upon the pavement of the mill. *Since that time, not a single case of disease has been known to be produced by exposure in the apartment.*

## Analytical Reviews.

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### ART. I.—*Contribution to the Pathology of Phlegmatia Dolens.*

*By Robert Lee, M. D. &c. &c.*

WE find a valuable article under the above title in the last volume of the Medico-Chirurgical Transactions. The subject is a part of the debateable ground of our science; and our readers will, therefore, be pleased with a brief analysis of a paper which promises to throw some light upon it. Dr. Lee, in the true Baconian method, begins by laying down his facts. These are found in cases which he details at length.

*Case I.*—Mrs. J.—, æt. 31, was delivered of her fifth child, March 10th, 1827, after protracted labour, with severe pain, shooting into left thigh and leg. This subsided, and all went on well 'till the 14th. She then began to suffer pain in left groin and calf of leg, with numbness in the whole limb, tumefaction and tenderness in the groin; occasional rigors—furred tongue—thirst—bowels open—pulse 80—flow of milk and lochia natural. 16th. Pain more severe, particularly from groin to knee on the inside, where there was swelling of a glistening white appearance. 19th. Pain diminished, but swelling increased and extended to leg and foot—both tense and not pitting on pressure; skin not discoloured—pain relieved by flexion of the limb. 24th. Pain greater—pulse quicker, the skin hot and moist; patient dejected and restless. 25th. Patient first seen by Dr. Lee. Whole member then much swelled—especially ham and calf of the leg; surface smooth and shining, of a cream-like colour; pitting on pressure, more in some places

than in others. Temperature not higher than in the other limb, though she complained of sense of heat—much pain in inner and upper part of thigh on moving. Immediately below Poupart's ligament, in the situation of the femoral vein, a thick hard cord, about the size of the little finger, was distinctly felt. This cord, which rolled under the finger, and was very sensible, could be traced four inches in the course of the femoral vessels, and pain was felt on pressure as low as the middle of the thigh. Pulsations of the femoral artery felt in usual situation; pressure over this vessel created little or no pain. Pulse 90, and sharp—tongue furred—thirst urgent—bowels confined—lochia nearly disappeared. The usual depletory means were employed in the treatment of this case; leeches, discutient lotions, anodynes, cathartics, febrifuge medicines, &c. &c. were put in requisition, and she was at length restored to health.

Eleven months after this attack, she again became pregnant, but, November 5, 1828, she perished from uterine hemorrhage, after the birth of a dead infant. The limb previously diseased was then carefully examined. It was found to be considerably larger than the right, but no serous fluid escaped from the incisions; beneath the skin there was found a thick layer of dense, granular adipose matter. The iliac and femoral vessels, together with their sheath, were carefully removed for examination. The common iliac and its divisions, with the upper part of the femoral veins, so resembled a ligamentous cord, that, on opening the sheath, the vessel was not, until dissected out, distinguishable from the cellular substance around it.—Opening the middle portion of the vein, a firm thin layer of lymph was found, in some places adhering close to, and uniting its sides—in others clogging, but not distending it. On tracing it up, it was observed, above Poupart's ligament, to become gradually smaller, so that in the situation of the common iliac, it was lost in the surrounding cellular substance, and its entrance into the cava could not be seen. The cava was natural. Entrance of the internal iliac completely closed, and in the por-

tion examined, its inner surface was coated with an adventitious membrane. The lower end of the vein removed was open, but its coats more dense than natural, and the inner coat was lined with a strong membrane, which diminished it considerably in its calibre, and here and there fine bands of the same substance ran from one side of the vessel to the other; the outer coat strongly adhered to the artery and sheath. The inguinal glands adhered firmly to the vein, but were otherwise healthy. It cannot be doubted that these morbid appearances were the result of the disease in the member, the symptoms of which have been related.

Case 2. This was of a lady, Mrs. P——, æt. twenty-seven. She was delicate in constitution. For the two last months of pregnancy, she had been afflicted with œdema of the right superior extremity—varicose enlargement of the veins—pain in the thigh and groin, particularly in the latter. She was delivered, Dec. 8, 1827, after a labour somewhat difficult, but natural, of a healthy child. During the succeeding week she suffered much pain in the hypogastrium and right iliac and inguinal regions. The pain then disappeared, but returned again on the 21st, with rigors, fever, stiffness and tenderness in whole limb. Dr. Lee saw her on the 22d; limb much swollen, integuments tense and elastic, pitting slightly along the tibia, but not on the thigh, but great pain was produced there by pressure, along the femoral vein, which felt as if enlarged, rolled under the finger, was hard and incompressible. Pain shot along the great vessels—heat in limb—high degree of febrile excitement. 25th, worse—right labium swelled; integuments pale, shining, and every where pitting when strong pressure was made. Next day the other limb appeared to be assuming the same form of disease—fulness and pain in iliac region—leg swelled and hot. No enlargement of vein was felt, but there was some pain along its course, through groin and thigh. On the 28th the swelling of right extremity diminished, and the indurated vein could be felt in groin, but there was pain still. In the left extremity the

disease progressed, the limb being swelled, stiff, hot, painful and pitting on pressure—left labium swelled—femoral vein felt enlarged and hard—pain down the thigh to point where it leaves the ham—pressure there produced pain. Countenance pale and sunk—pulse rapid—great irritability and prostration of strength. 29th, swelling still greater in the limb last attacked and rendering the vein obscure. The symptoms, however, gradually yielded, and on the 12th of Feb. the pain had abated though limbs weak, and ankles swelled. No enlargement along the femoral vessels. The cure was effected in this case by the means usually employed under such circumstances—bleeding—purg—cold lotions—anodynes, &c. &c.

There are other cases contained in an appendix to the paper, which the author adduces as corroborating his opinion that inflammation of the veins of the thigh and abdomen is the immediate cause of the morbid phenomena in phlegmatia dolens. They are, however, far less satisfactory, in this respect, than those which we have analyzed above, and we deem it by no means unjust to the author to omit them.

Our readers will bear in mind, that the doctrine advocated by our author is not original with him; indeed he does not claim it as such. This opinion was first promulgated by Mr. Davis of London, and, very near the same time, by M. Velpeau. But, although so ably advocated, the explanation is still to be received with great caution. In our last number we gave an analysis of a paper, by Mr. Arnott, on phlebitis, which the writer presents to our view in a most frightful aspect. Indeed, from general observation, as well as from his remarks, we infer that phlebitis is a disease of far more formidable character than phlegmatia dolens ordinarily is. Indeed, the former is almost always fatal, while the latter is rarely so. Mr. Arnott maintains that inflammation of the veins is the cause of those extensive depots of pus which occur in various parts of the body, after certain wounds. He asserts, also, that these are a characteristic result of that affection. Now, such occurrences ne-

ver attend the progress of phlegmatia dolens; consequently the advocates of one or the other must be in the wrong, and perhaps both of them are so. The opinions of each, however, are sustained by very plausible facts, and they therefore merit an attentive examination. From the collision of opposite opinions, although they alone emit no light nor heat, scintillations of truth may be struck out.

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## ART. II.

### SELECTED FROM THE MEDICO-CHIRURGICAL REVIEW.

*Proposal of a Plan for the Investigation of the due Administration of Blood-letting.* By Marshall Hall, M. D. &c.

WE learn from this little brochure that Dr. Hall is prosecuting with his usual zeal, and, we have no doubt, with his usual ability, the very important subject of blood-letting. No remedy is now more general—not even calomel or blue-pill—and this fact may assure us that no remedy is more abused. It is certain that if several persons be bled deliquium in the erect posture, they being of apparently similar strength, but affected with dissimilar diseases, they will be found to have lost very different quantities of blood before the fainting is induced. Dr. Hall has known a patient, not apparently very feeble, to faint on losing four ounces of blood—whilst he has seen other patients bear the loss of 50, 60, or even 70 ounces of blood without syncope. How is this to be explained?

“Its rationale is to be found, I believe in connection with an equally interesting fact, that different diseases induce the constitution different powers or susceptibilities in regard to the effects of loss of blood. Each disease appears, indeed, to possess its own peculiar and intrinsic virtue in this respect. This is determined by placing the patient perfectly erect, and bleeding to incipient syncope; the quantity of blood which flows is the measure of the protective influence of the disease in one class of cases, and of its influence in superinducing a susceptibility to the effects of blood in the other.

“An interesting scale of diseases may be formed representing these properties. It would begin with congestion of the head, or tendency to apoplexy; inflammation of the serous membranes, and

of the parenchymatous substance of various organs, would follow; and lastly, inflammation of the mucous membranes. This part of the scale would be divided from the next by the condition of the system in health. Below this would be arranged fever, the effects of intestinal irritation, some cases of delirium, reaction from loss of blood, and disorders of the same class with hysteria, dyspepsia, chlorosis, and cholera morbus." 4.

Persons in health and of moderate strength, will generally faint if bled in the erect posture, on taking fifteen ounces of blood. Dr. H. has known seventy ounces to be taken in the sitting posture, in tendency to apoplexy, without syncope. But this is an extreme case. Patients with pleuritis frequently bear the loss of 35 ounces of blood without fainting. "In bronchitis little more is borne to be lost than in health."

"A stout person in fever will frequently faint on losing ten, twelve, or fourteen ounces of blood. In intestinal irritation, with urgent symptoms even, the abstraction of nine or ten ounces of blood will generally induce deliquium. In delirium tremens, or puerperal delirium, the patient soon faints from loss of blood. The same thing is still more observed in those cases of violent reaction, which arise from loss of blood itself. In dyspepsia, hysteria, and chlorosis, the susceptibility to syncope from loss of blood is very great. And I have known a patient, of good strength, affected with cholera, faint on taking four ounces of blood, although she had shortly before borne to lose nearly twenty ounces without faintishness, under the influence of inflamed mamma." 5.

The solution of these differences, Dr. H. thinks, must be found in the different nature of the diseases themselves. In all those cases, he observes, where the circulation of the heart and larger arteries only is affected, and especially in such as involve irritation or exhaustion, there is early syncope on taking blood. But in such cases as consist in an affection of the capillary circulation, and especially such of these as affect the head, it requires the abstraction of much blood to induce deliquium.

"Syncope is prevented by the influence exerted by this state of the capillary circulation over that of the heart and larger arteries, and over the whole system, and especially over the circulation within the brain; and it does not entirely subdue the morbid action of the capillary vessel even when induced. To induce syncope in pure fever, we have then to subdue the state of reaction in the heart and larger arteries. In inflammation, we have not only to do this, but to overcome the influence of a permanent morbid action of the capillaries; this is especially observed in inflammation of the serous membranes and within the head." 6.

The practical application of this fact consists chiefly in its affording a rule for blood-letting in all cases in which this measure is required to be fully instituted—a guard against undue blood-letting, both in this and some other cases—and a source of diagnosis.

“The quantity of blood which flows when a patient requiring full blood-letting is placed upright and bled to deliquium, seems accurately proportionate to the exigencies of the case. In inflammation much blood should be taken; and much blood will flow before deliquium is induced: in irritation, little blood should be drawn; and there is early syncope from blood-letting. The quantities are even accurately suited, not only to the exigencies of the disease, but to the powers of the system; at least so it appears to me from considerable experience.

“The rule is suited also to the degree and the duration of the disease, for, with each of these, its influence in inducing tolerance or intolerance of loss of blood is respectively augmented.

“It is not less adapted to those most frequent of all events, mixed cases. Inflammation and irritation may be conjoined. For example, there may be mere nephralgia, or absolute nephritis, from calculus, or a mixed case involving both. There may be mingled intestinal irritation, and inflammation. In each of these circumstances, the rule for blood-letting which I have proposed, adapts itself accurately to the demands of these various morbid affections, and to the actual strength and condition of the general system.

“It is difficult to say whether more injury has been done by an undue or by an inefficient use of the lancet. In inflammation we must bleed fully. In irritation we must bleed cautiously. Inefficient blood-letting in the former disease, and undue blood-letting in the latter, are alike dangerous or even fatal to the patient; from both extremes we are guarded by the rule which I propose. By directing the patient to be placed in the erect position, and bled to deliquium, we often take much more blood than we should have ventured to prescribe, in inflammation, and very much less than we might be disposed to direct, in irritation; and in both these cases the rule conducts to the only safe mode of treatment.

“A further practical application of this fact, flows from the adoption of the rule. In doubtful cases it furnishes us with a fresh means of diagnosis. If much blood has flowed before syncope occurred, we must suspect inflammation; if little we must suspect that, however similar the symptoms, the case is in fact of a different nature,—perhaps irritation, perhaps exhaustion. For further information on these two states and affections of the symptoms, I must refer my reader to a little work in the press, entitled *Researches on the Morbid and Curative Effects of Loss of Blood*, in which they will be particularly discussed.” 9.

The principal object of this precursor of a larger work is to solicit the co-operation of the author's medical friends in the further investigation of the subject. With the view of obtaining facts by the multitude of which alone the propositions can be established or corrected, he proposes that, in every case in which full blood-letting is to be instituted, the patient should be placed perfectly erect in a chair or in bed, and bled to the very first appearance of syncope. The quantity of blood taken is then to be noted, and accurately registered in a table. The same thing is to be observed on each repetition of the bleeding. The various facts which he proposes to register may be seen in the following table.

Age and strength of the patient.	Disease, its stage & complications.	Quantity of blood taken	Effects on the patient and diseases	Appearances of the blood.	Repetitions of the blood-letting.	Effects.

D. H. observes, in conclusion, that he does not think it safe, in any case, to bleed to deliquium in the recumbent posture.—There can be few, if any cases, in which, if it be proper to bleed fully, danger can accrue from bleeding to the most incipient syncope in the perfectly upright position. Besides, the remedy is at hand. We have only to lay the patient in the recumbent posture, and, if necessary, raise the feet and depress the head.

We shall be anxious to see the promised work, announced by the talented author in one of the foregoing extracts.

## ART. III.

## SELECTED FROM THE MEDICO-CHIRURGICAL REVIEW.

*Of some Symptoms in Children erroneously attributed to Congestion of the Brain* By Robert Gooch, M. D.

THE above is the title of the sixth chapter in Dr. Gooch's recent publication, and the subject is of very great importance. The chapter opens in a ludicrous manner, considering the gravity of the subject; but the moral inculcated deserves to be remembered.

"I remember when a boy reading a story of two knights-errant who arrived on the opposite sides of a pedestal surmounted by a shield; one declared it was gold, the other that it was silver; growing angry, they proceeded to blows, and after a long fight each was thrown on the opposite side of the shield to that where he began to fight—when both immediately detected their error; the knight who had said it was silver finding that on the opposite side it was gold, and the knight who had said it was gold finding that on the opposite side it was silver. This story, a little modified, is a good illustration of the state of medical opinion in this age, perhaps in all ages; medical men have no occasion to tilt, for they all throng on one and the same side of the shield; they look only at the golden side, and never dream of the possibility that on the opposite side it may be of a different metal." 355.

Dr. G. properly remarks that two sets of symptoms are distinguishable in cases of disease, and require to be discriminated. One set of symptoms forms what may be called the physiognomy of the complaint—the other indicates the morbid state of organization on which the disease depends.

"Two patients complain occasionally of dimness of sight, swimming of the head, singing in the ears, and observe if they turn the head on one side to look at an object they feel as if they should fall; but the one is plump, florid, and has a full pulse; the other is pale and thin, has cold hands and feet, and a pulse small and feeble. One practitioner bleeds them both, the other bleeds the one, but does all he can to give blood to the other. The latter cures both his patients; the former cures the one but ruins the health of the other; but such is the nature of the human mind that the cases for a preconceived opinion are retained easier than those *against* it.—He remembers his good deed, forgets the other, or calls the case 'anomalous,' and marches on, without the slightest doubt that bleeding is the universal and sovereign remedy for dimness of sight, swimming of the head, and singing in the ears, save and except only in 'anomalous' cases." 357.

Dr. G. is anxious to call the attention of medical men to a disorder of children which he finds invariably attributed to, and treated as, CONGESTION or INFLAMMATION of the brain; but which he is convinced often depends on or is connected with, an opposite condition of the circulation. It is chiefly indicated by heaviness of head and drowsiness. The age of the little patients is generally from a few months to two years or three.—They have, in our author's experience, been rather small of their age, in delicate health, and exposed to debilitating causes.

"The physician finds the child lying on its nurse's lap, unable or unwilling to raise its head, half asleep, one moment opening its eyes, and the next closing them again with a remarkable expression of languor. The tongue is slightly white, the skin is not hot, at times the nurse remarks that it is colder than natural; in some cases there is at times a slight and transient flush: the bowels I have always seen already disturbed by purgatives, so that I can scarcely say what they are when left to themselves; thus the state which I am describing is marked by heaviness of the head and drowsiness, without any sign of pain, great languor, and a total absence of all active febrile symptoms. The cases which I have seen have been invariably attributed to congestion of the brain, and the remedies employed have been leeches and cold lotions of the head, and purgatives, especially calomel. Under this treatment they have gradually become worse, the languor has increased, the deficiency of heat has become greater and more permanent, the pulse quicker and weaker, and at the end of a few days, or a week, or sometimes longer, the little patients have died with symptoms apparently of exhaustion. In two cases, however, I have seen, during the last few hours, symptoms of oppressed brain, as coma, stertorous breathing, and dilated and motionless pupil." 358.

Dr. Gooch relates an instructive case illustrative of the above remarks, where leeches were applied to a child two years old, and the result was fatal. This case and some incidental remarks are so interesting that we shall here insert them.

"A little girl, about two years old, small of her age and very delicate, was taken ill with the symptoms which I have above described. She lay dozing, languid, with a cool skin, and a pulse rather weak, but not much quicker than natural. She had no disposition to take nourishment. Her sister having died only a week before of an illness which began exactly in the same way, and which was treated by leeches and purgatives; and some doubts having been entertained by the medical attendant of the propriety of the treatment, leeches were withheld, but the child not being better at the end of two days, the parents, naturally anxious about their only surviving child, consulted another practitioner. The case was imme-

diately decided to be one of cerebral congestion, and three leeches were ordered to be applied to the head. As the nurse was going to apply them, and during the absence of the medical attendants, a friend called in who had been educated for physic, but had never practised it, and who had great influence with the family: he saw the child, said that the doctors were not sufficiently active, and advised the number of leeches to be doubled. Six, therefore, were applied; they bled copiously; but when the medical attendants assembled in the evening they found the aspect of the case totally altered, and that for the worse; the child was deadly pale, it had scarcely any pulse, its skin was cold, the pupils were dilated and motionless when light was allowed to fall on them, and when a watch was held to its eyes it seemed not to see; there was no squinting. Did this state of vision depend on the pressure of a fluid effused into the brain since the bleeding, and during this exhausted and feeble state of circulation, or did it depend on the circulation of the brain being too languid to support the sensibility of the retina? It is well known that large losses of blood enfeeble vision. I saw a striking instance of this in a lady who flooded to death. When I entered the chamber she had no pulse, and she was tossing about in that restless state which is so fatal a sign in these terrific cases. She could still speak, asked whether I was come, (she knew I had been sent for,) and said 'am I in any danger?—How dark the room is!—I can't see.' The shutters were open, the blind up, and the light from the window facing the bed fell strong on her face. I had the curiosity to lift the lid, and observe the state of the eye; the pupil was completely dilated, and perfectly motionless, though the light fell strong on it. Who can doubt that here the sensibility of the retina depended on the deficiency of its circulation? But to return to the little patient. The next days she had vomited her food several times; it was therefore directed that she would take no other nutriment than a dessert spoon-full of ass's milk every hour, and this was strictly obeyed, and continued for several days. The child wasted, her features grew sharp, every now and then she looked fretful, and uttered a faint squeaking cry; the eye-balls became sunk in the socket, like those of a corpse that had been dead a month; the skin continued cool, and often cold, and the pulse weak, tremulous, and sometimes scarcely to be felt. Under this regimen, and in this way, she continued to go on for several days. At times she revived a little, so as to induce those who prescribed this treatment to believe confidently that she would recover, and she clearly regained her sight, for if a watch was held up to her she would follow it with her eyes. She lived longer than I expected; a full week, and then died with the symptoms of exhaustion, not with those of oppressed brain. The head was opened by a surgeon accustomed to anatomical examinations, and nothing was found but a little more serum than is usual in the ventricles." 361.

Our author concludes that the heaviness of the head and drowsiness, which were attributed to congestion in the brain, really depended on a deficiency of nervous energy—that the bleeding and scanty diet aggravated this state, “and insured the death of the child.”

Dr. G. was summoned one day to see a child, to whose head the medical practitioner was about to apply leeches. He found the child lying on its nurse's lap, exactly in the state already described; with the same unwillingness to hold up its head—the same drowsiness—languor, absence of heat and of all symptoms of fever. Dr. G. took the medical attendant into another room, and told him the history of the preceding case and of several others of a similar kind. Instead of applying the leeches, they agreed to give from a pint and a half to a quart of ass's milk in the 24 hours—and to take ten minims of the aromatic spirit of ammonia every four hours. When they met next day, the nurse was walking about the nursery with the child upright in her arms. It looked happy and was laughing. The same plan was continued another day, and on the succeeding day Dr. Gooch took his leave.

“So inveterate is the disposition to attribute drowsiness in children to congestion of the brain, and to treat it so, that I have seen an infant, four months old, half dead from the diarrhoea produced by artificial food, and capable of being saved only by cordials, aromatics, and a breast of milk; but because it lay dozing on its nurse's lap two leeches had been put on the temples, and this by a practitioner of more than average sense and knowledge. I took off the leeches, stopped the bleeding of the bites, and attempted nothing but to restrain the diarrhoea, and get in plenty of nature's nutriment, and as I succeeded in this, the drowsiness went off, and the child revived. If it could have reasoned and spoke it would have told this practitioner how wrong he was; any one, who from long defect in the organs of nutrition, is reduced so that he has neither flesh on his body, nor blood in his veins, well knows what it is to lay down his head and doze away half the day without any congestion or inflammation of his brain. This error, although I have specified it only in a particular complaint of children, may be observed in our notions and treatment of other diseases, and at other periods of life. If a woman has a profuse hæmorrhage after delivery, she will probably have a distressing head-ache, with throbbing in the head, noises in the ears, a colourless complexion, and a quick, weak, often-thrilling pulse, all which symptoms are greatly increased by any exertion. I have seen this state treated in various ways, by small opiates, gentle aperients, and unstimulating nourishment, with no relief. I have seen blood taken away from the head, and

it has afforded relief for a few hours, but then the head-ache, throbbing and noise have returned worse than ever; the truth is, that this is the acute state of what in a minor degree and in a more chronic form occurs in chlorosis, by which I mean pale-faced amenorrhœa, whether at puberty or in after-life. It may be called *acute chlorosis*, and like that disease is best cured by steel, given at first in small doses, gradually increased, merely obviating constipation by aloetic aperients." 365.

Dr. Gooch is unwilling to encumber this paper with a multiplicity of cases, but states generally that the above are only specimens of a class, of which he has seen enough to convince him that they deserve the attention of the profession. Dr. Gooch refers to the excellent remarks of Dr. Marshall Hall on this class of affections. Dr. G. candidly acknowledges that he has been anticipated by Dr. Hall, on this point, but so far from regretting it, he rejoices to find himself supported by such good authority.

"The children who were the subjects of this affection, and were thus treated, died not with symptoms of oppressed brain, but with those of exhaustion, and on examining the head after death, the blood vessels were unusually empty, and the fluid in the ventricles rather in excess; in two instances death was preceded by symptoms of effusion, viz: blindness, a dilated pupil, coma, and convulsions; and after death the ventricles were found distended with fluid to the amount of several ounces, the sinuses, and veins of the brain being remarkably empty. I believe the prevalent notion of the profession is, that all sudden effusions of water into the brain are the result of inflammatory action; but putting aside for a moment this dogma of the schools, consider the circumstances of this case. For several days before death, all that part of the circulating system which was cognizable to the senses, was at the lowest ebb consistent with life, and after death the blood-vessels of the brain were found remarkably empty of blood, and the ventricles unusually full of water. From such facts I can draw no other inference than this, that this sudden effusion was a passive exudation from the exhalents of the ventricles occasioned by a state of the circulation the very opposite to congestion of inflammation. This is corroborated by the dissection of animals which have been bled to death. Drs. Saunders and Seeds, of Edinburgh, found that in animals bled to death, whether from veins or arteries, there was found more or less of serous effusion within the head, and Dr. Kelly thus expresses himself:—'If instead of bleeding usque ad mortem we were to bleed animals more sparingly and repeatedly, I have no doubt that we should succeed in draining the brain of a much larger quantity of its red blood; but in such experiments we shall, I think, find a larger effusion of serum.' \* \* \* \* \*

"Though we cannot, by general depletion, entirely or nearly empty the vascular system of the brain as we can the vessels of the other parts of the body, it is yet possible, by profuse hæmorrhages to drain it of a sensible portion of its red blood, that the place of this spoliation seems to be supplied both by extra and intra vascular serum, and that watery effusion within the head is a pretty constant concomitant or consequence of great sanguineous depletion." But if this is true, it is of great practical importance, for if we take delicate feeble children, and by bleeding and purging for an imaginary congestion of the brain, reduce their circulation to a very low ebb and keep it so, we run the risk of producing that very effusion of serum into the brain which we are endeavouring by our remedies to prevent." 368.

Dr. Gooch does not expect that medical men will take his word as conclusive evidence for the truth of this paper—nor does he wish it. All he asks is that they will allow his observations and reasonings to lead them to look out for similar cases, and judge for themselves.

"With regard to the point that heaviness of head and drowsiness in children often depend not on congestion, but on deficiency of nervous power, and require for their cure not depletion, but support, I am quite satisfied that candid observers will find that I am right. With regard to the other point, that sudden effusion of serum may take place in the brain from a state of the circulation, the opposite to congestion or inflammation, it is more likely, even if true, to be overlooked; for such is the force of preconceived opinion, and such the prevalent notions on the subject, that the following will be the process in most minds. A child has been suffering some obscure symptoms for many days, when suddenly and unexpectedly it becomes blind, its pupils are dilated and motionless, it becomes convulsed, comatose, and dies. On opening the head serum is found in the ventricles, and without any further inquiry it is immediately taken for granted, that this effusion was the effect of overlooked inflammation of the brain, and regret is felt that active depletion had not been employed; the inference may be a correct one; all I contend for is, that it should not be taken for granted, but that those circumstances should be minutely inquired into which throw light on the state of the circulation in which the effusion occurred." 374.

We strongly recommend Dr. Gooch's observations to the attentive consideration of our professional brethren.

## Abstract of Foreign Medicine.

### PATHOLOGY, PRACTICE, AND MATERIA MEDICA.

*Case of Poison by Cantharides in powder, succeeded by the detachment and expulsion of the Mucous Membrane of the Oesophagus.* This was the case of a man named Nelze, to whom I was called on the 8th June, 1826. I found him suffering with burning heat in the mouth, throat and stomach; with excessive pains in the loins and about the region of the bladder, accompanied by great desire to void urine, without a possibility of effecting it, although he forcibly pressed upon the abdomen with both hands. The mouth quite excoriated—ptyalism and nausea continual; the tongue was agitated with evident convulsive motions; the pulse small and frequent. On examining the nature of the matter he had thrown up, I distinguished portions of the mucous membrane, and likewise fragments of cantharides. Three hours had already elapsed since the ingestion of the cantharides, the quantity of which, however, had not been ascertained. The patient, parched with thirst, had swallowed in succession four or five tumblers of water, and told me that, half an hour before taking the flies, he had eaten bread and onions.

I sent for ipecacuanha, (20 grs.) but before it came, I administered half a pound of olive oil, which the patient swallowed with the greatest reluctance; the ipecac. soon followed, and before long had effect: from observing considerable quantities of the flies in the ejected matter, I concluded that a very large dose had been taken. A short time after I forced Nelze to swallow as much as two-pounds more of sweet oil, which was followed in half an hour by 2 oz. of castor oil. The patient had several copious stools, and the fecal matter still contained cantharides. The castor and olive oil were again repeated with the same success. At night, there were convulsive motions of the thoracic and pelvic members; the priapism continued, the urine was red or bloody; there was febrile heat in the abdomen; the pulse small and frequent, and subsultus tendinum. The olive oil internally and as an enema, were again resorted to—the pain, about the throat, stomach, loins and bladder still continued; 10 leeches were applied to the neck, 20 to the epigastrium, and as many to the perineum. As soon as they dropt off, I kept the patient in a bath for three-fourths of an hour.

The next day, (9th June,) the urine still bloody, eyelids closed—patient agitated—so desirous of quitting his bed that it was necessary to keep him there by force; the pulse still frequent, though not so small as before; pain still continuing in the region of the bladder. Thirty leeches were applied to it, and the bath, linseed tea, and repeated emollient enemata were employed. At night, the urine less bloody; some desire to vomit, but much more tranquillity. At 11 o'clock the same night vomiting came on, and the whole of the mucous membrane of the oesophagus was expelled.\*

\*The cylindrical tube, now sent you in the phial, was detached with great pain to the patient, and its detachment brought with it a quantity of blood. It was much lacerated about the extremities, but the middle part for the space of an inch and a half was perfectly sound. On the external surface I could distinguish several capillary blood vessels, and some folds, all in a longitudinal direction. On the internal surface there were many particles of cantharides. As the membrane has been now for upwards of two years in diluted spirits of wine, its colour is no longer red, nor can the capillaries be perceived.

On the 10th, the pulse was better, the urine less bloody, and there was considerably less pain; the same remedies were repeated, with the addition of milk, diluted with a decoction of barley, but deglutition was extremely painful.

On the 11th, the patient had opened his eyes, and on my entering the room he extended to me his hand, saying, with an air of the most lively satisfaction, "You have saved my life."

Notwithstanding his assurance, I still had doubts concerning the cure, on account of the injury done to the œsophagus by the detachment of the mucous membrane. It might be supposed that it was a spurious membrane, produced by vesication, or other causes; but I entertain no doubt concerning its nature, on account of the complete organization of the membrane. The tongue still convulsively agitated, and very red in certain parts—ptyalism still continued, as well as the pain attending deglutition; the urine more natural, no longer priapism, or pain on voiding urine. I prescribed milk, broth, gargarisms of honey, baths, emollient enemata—the patient desirous of leaving his bed.

On the 12th, no fever, but still heat in the mouth, exudation of a matter so glutinous as with difficulty to be detached. Urine copious and clear—the same remedies directed as on the preceding day.

On the 13th, rather more pain in the œsophagus—gargarisms and poultices to the neck—the other symptoms the same, and the same prescription.

On the 14th, the patient asked for wine and food—took rice milk, broth, vermicelli, preserves, and ptisan of gum. Deglutition more easy.

On the 15th, 16th and 17th, same state—same remedies.

On the 18th, the pain in the œsophagus bringing on cough—great prurieny in the rectum—slight diarrhœa—directed baths, enemata, poultices, rice, milk with ptisan of gum.

Nineteen, twenty, twenty-one, visible progressive improvement.

On the 22d, tongue less red, less agitated—salivation less—the patient can swallow solid aliment, for which he is constantly asking—in the deglutition thereof experiences no more pain than with liquids. There were no longer any ulcerations in the mouth, by which I was induced to believe there were no longer any in the œsophagus. Since then I have seen this man from time to time, and all the functions are admirably performed.

It is proper to add that I had previously attended him for acute hepatitis, which assumed subsequently a chronic form; this, with domestic troubles, urged him to that desperate act. He has since had many causes of trouble, infinitely more distressing than before, but I find him more gay and happy than antecedently to his first disease—for which I account by supposing that the antiphlogistic treatment followed, in consequence of the ingestion of the poison, together with the emollient regimen subsequently adopted, removed the hypochondria, as well as the chronic affection of the digestive organ.

[Translated and condensed from the description given by Dr. Rouquayrol—*Annals of Medicine*, Oct. 1829.]

*The department of Pharmacy, of the Royal Medical Academy, offer the following question as the subject for the premium to be awarded in 1830.*

"To analyze the Blood of a person with the yellow jaundice, and so compare it with that of a person in health as to establish the chemical differences between them."

The ancients considered the blood as the common source whence nature extracted all the materials necessary to constitute organized beings. At a later period it was believed that the blood contained only the elements which were collected together and elaborated by the various organs. Latterly the beautiful experiments of Mr. Brande on the colouring principle of the blood, of Mr. Chevreul on the elements of several animal fluids, of Dumas and

LeRoyer on the existence of urea in the blood of animals, from whom the kidneys had been taken, appear to substantiate the correctness of the opinions of the ancients.

The academy believes, 1st, that the question can be resolved by considering the cases of disease in which the functions of certain organs are suspended, disturbed or partially impeded.

2d. That it is all-important to discover by chemical experiments whether, in jaundice and other affections of the hepatic system, bile, or its immediate elements exist in the blood, as some researches have already led us to suspect and as has been concluded from the high colour of the urine in icteric patients.

Those who will take up the subject, may likewise inquire into the nature of the principle which gives to animal fluids a yellow tinge, and contributes particularly in warm seasons and countries, to render the complexion of such as are said to look bilious, more or less dark.

The premium is to be a gold medal, valued at one thousand francs.

Memoirs upon the subject must be written in French or Latin, and addressed in the ordinary form, before the 1st September, 1830, to the Secretary, Rue de Poitiers, No. 8, Paris.

According to the 91st article of the regulations, nominal and honorary members of the Academy, are alone excluded.

*Dr. A. G. Testa on Diseases of the Heart.*—This is a work of reputation, recently given to the profession by an Italian. We abstract the following notice of it from the North American Journal. In the first book the author treats of the causes of the heart's morbid alterations. He adduces many facts to show that they are often inherited, being transmitted often through many successive generations. Rickets and malformation of the chest are with propriety charged with the frequent production of cardiac diseases. Rickets, (the morbid state of the nutrient system which gives rise to the phenomena of the disease, rather than the deformity of joints, &c.) he regards as one of the most important causes. Indeed, he regards the diseases of the heart, which occur in rickets, to be antecedent to curvature of the spine, enlargement of the head, &c. &c. and the immediate causes of them. He states that imperfect minor or pulmonary circulation, in these cases, produces venous congestion, from which there result engorgements of the liver and spleen increased by the feebleness of the right side of the heart. These results by causing pressure on the diaphragm impede still further the pulmonary circulation and the general functions of the heart. He thinks that the great enlargement of the head which takes place is owing to the impediment which is presented to the free return of the blood to the right auricle and ventricle. He thinks that the good effects of cold bathing confirm this opinion. Spinal curvatures cause, or aggravate diseases of the heart by the impediment which they oppose to the free exercise of the functions of the organ.

But the more immediate and important causes of derangement of function and structure in the heart are *emotions of the mind—powerful and irregular passions*. It is stated that the brain thus influences the heart through the medium of the nerves. It needs no ghost, come from the grave, to tell us that. The author and the reviewer enter into a learned disquisition to show why the heart should be thus powerfully influenced through the medium of nerves which are so small as are those of the heart. The conclusion is that the nerves of this organ are more perfect and more delicately organized than others, having less of the neurilemma, or cortex of the nerves in other parts, and that they actually convey more nervous influence than do the nerves which are appropriated to the voluntary muscles. In proof of this he says

that the heart, by stimulation, is made to contract more powerfully than other muscles, and therefore its nerves must have more power. It would seem however that the author had not properly considered the doctrine of Haller and Philip in relation to this subject. These authors inform us that the heart is not excited to ordinary contractions through the medium of the nerves, at all, as are the voluntary muscles, and indeed, in our opinion, they give abundant proof of it. The heart is stimulated by its contents, as the voluntary muscles are by the will. The nerves of the heart, then, have no other office but to establish associations between this organ and others, and hence it is very easy to account for the shocks which it receives from impressions made on other organs.

By the influence of violent passion, the circulatory and respiratory organs simultaneously suffer. Indeed, it could not be otherwise, they are so intimately associated in function.

The emotions of the mind productive of disease of the heart are the strong passions, which, obviously to the eye, work powerfully upon the physical constitution of man. This is manifest in the livid features of rage, the glowing excitement of love, the pallor and almost paralysis of despondency and grief. It is in the circulatory system, particularly, that these impulses are felt. Diseases of the heart, therefore, are particularly frequent in seasons of public calamity and excitement. The passions influence the heart, not merely through the nerves, modifying the circulation, but by disturbing the necessary correspondence of action between the heart and lungs. The depressing passions, then, which produce sighing and sobbing, and thus disturb respiration, impede the circulation through the lungs, and thus cause it to delay in the right side of the heart and great veins. The influence of passion on the heart is the more strongly felt when there is an effort made by the sufferer to suppress the outward expression of it. Concealment is the worm in the bud, but clamorous grief does not prey upon the heart. Exclamations give an impulse to the blood in the lungs, and relieve the heart of its accumulating load—they also produce general re-action and excitement—they ease the “stuffed bosom of the perilous load which weighs upon the heart.” Excessive joy also sometimes produces the instant death of the heart, of which there are many instances on record.

Diseases of prior origin in the thoracic cavity are also causes of organic alterations in the heart; effusions; empyema; vomica; any thing, indeed, which may impede the circulation in the lungs, or mechanically oppress the heart. Pulmonary engorgement from bronchitis, without expectoration; spasmodic cough, very much impeding respiration and the circulation, morbidly influence the heart.

Primary diseases of the stomach and intestines are prolific sources of functional and organic disease of the heart. The stomach and heart are supplied with nerves from the same source—hence their well-known sympathy. Irritation of the stomach and intestines is very often promptly felt in the heart; witness the heart-ache of the hypocondriac. Every practitioner has often encountered affections of the heart simulating angina pectoris, and which were at once known to arise from derangement of the functions of the stomach. These organs may also influence the heart by a more direct and mechanical agency. The stomach and colon, when distended with gas, or other matters, press the diaphragm strongly upon the heart, and are often observed to produce palpitations; hence incubus at night, after gorging the stomach. The liver is, as we should expect, greatly concerned in heart affections. The great ascending cava is closely embraced by this organ, which also sends to it its own large veins. The cava, from the liver to the heart, is but a few lines in length. It is easy to conceive then, how the heart's functions may be disturbed by the liver, which can so much controul its supply of blood.

When the liver is engorged, tumid, or indurated, it must obviously impede the entrance of blood into the heart.

Scurvey and syphilis are regarded as causes of disease of the heart—also mercury if imprudently given for cure of syphilis. All laborious occupations which interfere with the healthy expansion of the chest are injurious to the heart. Porters and others who carry heavy burthens are thus exposed.

Metastasis of diseased action located in other parts of the body is also numbered among the causes which involve the heart in diseased action. The diseases which are liable to be thus translated are cutaneous eruptions, rheumatism, &c. &c.

The effects of disease of the heart are hysterical and hypocondriacal distress, gastric irritation, epilepsy, syncope, blindness, tedium vitæ, disturbed respiration and pains about the heart. A sensation of emptiness and of craving for food are common effects of derangement of the heart, which is often aggravated by the tonic plan of treatment frequently resorted to in such cases.

Cerebral irritation is a very common result of excessive action of the heart. This is especially the case when the heart is hypertrophied, for then the blood is driven by the organ with force into the head, giving rise, at times to madness, palsy, apoplexy, paralysis. Apoplexy is, indeed, a very common termination of neglected or badly treated affections of the heart.— Sometimes death is produced by the mere distension of the vessels, without any effusion. Among the consequences of cardiac disease is, also, a sense of sinking of the organ and falling in of the ribs.

It is worthy of particular notice that the author ascribes many of the disorders of the heart to a disproportion between the parts of the sanguiferous system, congenital or acquired. When this is the case, violent exertion or other cause of excitement, exercising the weaker parts too violently, may create a sudden transition from apparent health to alarming disease. The author calls this disproportion between the organs *asymmetry*. It may exist between the two sides of the heart, or between the auricles and ventricles, or between the heart and the great vessels.

Pericarditis and carditis are according to the confession of our author, not to be distinguished from each other with sufficient precision for practical purposes. Very common results of these inflammations are ossification of the valves and coronary vessels, and aneurism, with or without hypertrophy.— The characteristic symptoms of carditis are excessive palpitation, irregular, highly excited and hard pulse; laborious and painful respiration; oppression about the sternum; fulness of the arteries of the neck; morbid heat; face tumid, flushed or leaden; subsequently, features furrowed; eyes prominent, moist and shining; urine scanty; bowels costive. When disease severe, syncope and burning heat; pulse of left wrist more frequent and less regular than that of right; great irregularity in beat of the radial arteries. There is great distress and panting on ascending any height, or after sudden exertion of the arms—terrifying dreams—dryness and heat of the fauces, and even, at times, angina, diverting the attention of the physician from the real disease. There are also exhausting sweats; frequent catarrhs; effusions into serous cavities.

The diagnosis of *pericardial dropsy* is generally made by the patient, he being conscious of the heart's moving in a liquid. Other signs are palpitations and tremors; deliquium; dyspnoea in the supine posture; dry cough; hard and frequent pulse. The pulsation of the heart is felt at different points in the chest, because of the locomotion of the heart in the distended sack; obscure tremor under the ribs, extending far. *Face always tumid*; dry and cold skin and extremities. Tests does not confide in percussion as a means of ascertaining the nature of the disease. It very frequently occurs in females, pregnant or in the puerperal state. They are then prone to membranous diseases generally.

Blood and elastic fluids are sometimes effused into the pericardium without rupture of heart or vessels, as is manifest from cases stated. Among the morbid alterations of this organ, described by the author, are polypi, sarcoma, ossifications, petrifications, &c. Some polypi are merely secondary and symptomatic, formed just before death. But others are morbid growths, resulting from the exudation of fibrinous matter; these he thinks to be produced by blood imperfectly combined and elaborated, in consequence of disease of the lungs. Cases are given in which these permanent polypi were found, perfectly organized and floating in the cavities of the heart, being attached to some part of its walls, or to those of the great vessels.

*(We must conclude our abstract of the Pathology of the Heart in our next.)*

*Reflections on the Morbid Phenomena caused by the use of Iodine—by Dr Jahn.* The author of this paper, published in the Journal Complem. for Feb. 1830, inform us that in the part of country where he resides, there prevails a species of bronchocele which, to all appearance, is a simple hypertrophy of the thyroid gland. He affirms that this affection is never seen where the water springs from ground that is basaltic, porphyritic, granitic, or gravelly; whereas it is constantly observed where the waters issue from calcareous soils, and contain a quantity of lime in mixture. Iodine is the remedy which is generally employed for bronchocele in this part of the country, and he has had ample opportunities, he says, for remarking its effects on the animal organization. Orfila shewed that this powerful medicine, in large doses, occasioned pains in the stomach, malaise, vomiting, diarrhoea, syncope, oppression, pyalism, tremors, &c. Symptoms of this kind were observed by our author in a man who had swallowed, by mistake, an inordinate dose of the tincture of iodine. In other cases where the medicine was merely continued longer than proper, Dr. J. was struck with the slow but great absorption of fat, preceded and accompanied by an augmentation of all the secretions and excretions. He observed the skin became dark-coloured, and the perspiration viscid—the breathing embarrassed—the urine abundant—the bowels loose and very bilious—the catamenia (in females) more copious. From these phenomena our author argues that the functions of the venous and absorbent vessels are much increased, in proportion as the nutritive system has been diminished. The blood, he says, becomes thinner than natural, and least abundant in fibrine. If the medicine be continued, in these cases, various bad consequences ensue. He mentions two cases where he opened the bodies of patients who laboured under the excessive use of iodine, and where the emaciation was extreme, and the viscera in a very flabby state. Still Dr. J. considers the medicine in question as one of the most valuable which has been discovered within the last hundred years. Indeed he terms it “un remede divin.”

In scirrhus of the pylorus Dr. J. affirms that iodine has sometimes removed the malady, when early applied, and when aided by leeches. The same has been stated by Wagner, Henneman, Hufeland, and others. We would strongly recommend the medicine in question to be tried in dropsical cases dependent on visceral obstructions. [Med. Chir. Rev.]

*Lupus treated by the Iodine of Mercury.*—“One very interesting case of this disease was in the Hospital for some months. I mention it here, because it has been greatly benefited by a medicine which is not yet much employed in this quarter; I mean the iodine of mercury.

“A. A. a healthy country girl, aged 21, had suffered under lupus for thirteen months at the time she was admitted. The tip and alas of the nose were the parts affected, and there was a small portion of the cheek also involved, and the disease had in some degree spread to the inside of the nostrils. It presented in several places the distinct tuberculated appearance of lupus, and in other places had proceeded to ulceration, although this was not very deep. She had undergone a course of mercury, and used a great many

local applications; among which were the nitrate of silver and a solution of arsenic, but with little permanent benefit. After her admission, lunar caustic was repeatedly applied to the affected parts, and she used an ointment composed of mercury, camphor, and turpentine, and also a strong arsenical ointment, but not with much effect. The iodine of mercury, in the proportion of six grains, and afterwards nine grains, to an ounce of simple ointment, was then used daily, and under this application many parts skinned over, and the disease was in a great measure subdued. She used it for several weeks in the Hospital, and since she was dismissed some of the small tubercles have re-appeared, but were speedily destroyed by the slight ulceration produced by the ointment. In this case, the disease, although not yet completely eradicated, has been kept under, and more completely relieved by this, than by any other application.

"I have also used the same preparation, but stronger, in a case of curious anomalous tumours of the face, somewhat resembling the melanosis, but evidently not malignant, although it could not prevent the re-appearance of the affection. I think this preparation of iodine and mercury will be found to answer in many cases of ulcerations where other escharotics, murias hydrargi, nitras argenti, arsenic, &c. have failed.

Here we must stop for the present, but some interesting cases remain to be noticed at a future opportunity.

[*Med. Chir. Rev.*]

## MEDICAL SCHOOL OF MAINE.

The course of Medical Lectures at Bowdoin College for 1830, closed on Saturday, May 15th. The examination of Candidates for the Degree of Doctor in Medicine commenced on the following Monday morning, and continued until Saturday noon. Of a class consisting of ~~thirty-nine~~ <sup>thirty-six</sup> pupils, ~~thirty-six~~ candidates for a Degree, passed a satisfactory examination before the Faculty of Medicine. The following list contains the names of the young gentlemen, their places of residence, and the subjects of their dissertations.

Benjamin Atkinson, *Newburyport*, Ms. on Tetanus. Aaron G. Babcock, *Princeton*, Ms. Animal Electricity. Ariel Ballou, *Cumberland*, R. I. Jaundice. Ezekial M. Bartlett, *Bethel*, Carduus Canadensis. H. Bourne, A. B. *Attledorough*, Ms. Influence of Nervous Irritation on the Mind. Benjamin F. Suxton, *Warren*, Ictodes Fœtidus. Moses P. Cleaveland, A. B. *Brunswick*, Cæsarean Operation. Luther Cross, *Keene*, N. H. the Nerves. Alexander H. Day, *St. Augustine*, E. Florida, Contagiousness of Yellow Fever. Joseph P. Dorr, *Chatham*, N. Y. Retention of Urine. Franklin P. Fletcher, *China*, Mensuration. Octave C. Foitier, *Quebec*, L. Canada, Phthisis Tuberculeuse. Moses Frost, *Norway*, Typhus Fever. Jared Fuller, *Hampton*, Conn. Opium. Franklin Gage, A. B. *Augusta*, Fungus Hæmatodes. George W. Goodwin, *South Berwick*, Blood-letting. Jerome Harris, *Methuen*, Ms. Secale Cornutum. Nahum Jordan, A. B. *Ellsworth*, Hæmoptysis. Sherman M'Lean, *Andover*, Conn. Necrosis. Calvin M'Questen, *Bedford*, N. H. Dyspepsia. Wm. Marriett, *Standich*, Phthisis Pulmonalis. Robert S. Morrill, *Canterbury*, N. H. Osteitis. Selim Newell, *Derby*, Vt. Diabetes Mellitus. John D. Pillsbury, *Pembroke*, N. H. Hepatitis. Hosea Powers, *Sandford*, Chorea. Isreal Putnam, A. B. *Sutton*, Ms. Conception. Thomas Roberts, *Bethel*, Enteritis. Luke W. Stanton, *Norwich*, Ms. Organic Affections of the Heart. Enos H. Thompson, *Avon*, Cholera. Isaac Thompson, *Rumford*, Scrofula. Erastus C. Torrey, A. B. *Windsor*, Vt. Hepatitis. Nathaniel C. Towle, *Wolfborough*, N. H. Indigenous Medicines. Isaac Waterhouse, *Poland*, Blisters. Thomas White, *Bethel*, Phrenitis. Albert Williams, A. M. *Boston*, Ms. Functional Derangement of the Digestive organs. Lewis Whitney, *North Yarmouth*, Influence of the Imagination on the Fœtus in Utero.

*Eastern Galaxy.*

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No. VI

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Original Essays.

ART. I.—*Hints on the Treatment of Dysentery.*

THE luxuriant vegetation, the extreme humidity, and the remarkable vicissitudes of the present year, certainly threaten to produce a season more rife with disease than has recently occurred. It must be confessed, however, that there is no prophetic precision in such predictions. In medicine, signs often fail in wet weather as well as dry. When the skies were most forbidding, we have often observed the season to be highly salubrious, and, on the other hand, epidemic pestilence is sometimes wafted among us on, apparently, the most genial breezes. Still, in medicine, "he who regardeth the clouds," is by no means unwise; and if he does not derive, from that source, infallible premonitions, will obtain those which are often useful.

We have reason to believe that dysentery will be a prominent disease during the present year. We infer this, not only from the character of the season, but because it has already displayed itself in many sections of our country, at a period somewhat earlier than usual. Cases of pretty severe character have fallen under our observation, in this city. In a profes-

sional trip which we have recently made into Virginia, we heard of several severe cases of this distressing malady. A few desultory remarks, therefore, in relation to its pathology and treatment, we shall presume acceptable to our readers.

Dysentery has long been known to be a morbid affection of the internal surface of the large intestines; but the analytical anatomy of Bichat has certainly rendered its pathology more intelligible, by detecting, with more precision, the vital and physical qualities of this mucous tissue. Cullen's classification of this disease with catarrhs, has often been censured, as doing violence to natural relations; but certainly this cannot be asserted, when we reflect, that these diseases spring from the same proximate cause, (inflammation,) located in the same tissue, but concerned in functions so different, and having such different relations, as to give rise to a remarkably different train of symptoms. Still, however, the similarity which arises from similarity of tissue, is not the less important in regard to treatment. Remedies are certainly found to influence the mucous membranes, much in the same way, in every part of the system—exceptions being admitted.

Dysentery is a species of enteritis—an inflammation of the mucous lining of the large intestines, and sometimes of the small. We have no opportunity to ascertain the condition of the membrane, in the incipient stage of the disease, but we have reason from analogy, to believe, that it first becomes engorged and thickened, precisely as, from similar causes, the mucous membrane does in the nasal passages, in catarrhs—the bronchial tubes and larynx, producing hoarseness and dyspnoea. Very interesting facts, in relation to inflammation of the mucous tissues may be found in M. Gendrin's admirable anatomical description of inflammations. To him we must refer, for facts too numerous to be here quoted. We would state, however, that inflammation of the mucous tissues may be accompanied either with diminished, or increased, secretion of mucus.

When the excitement is incipient, the membrane is generally dry; but soon the mucus becomes redundant, and morbid in its quality, being more tenacious and consistent than in health, and probably less bland than usual. Mucous membranes, we know, may also, when inflamed, without abrasion, secrete pus. Blood, too, often exudes from the engorged vessels. Now, these phenomena are common to all forms of mucous inflammation. The muco-purulent expectoration which takes place in severe catarrhs, is very similar to that which is observed in dysentery. Both are observed often to be tinged with blood.

In dysentery, I have observed that the severest cases of disease are not attended with the most copious mucous discharges. This is because the membrane is too intensely inflamed. It is then highly irritable, and the efforts at stool are frequent and ineffectual. When the mucous is copious and without blood, it indicates a lower degree of inflammation, and the discharge itself is a source of relief, as it depletes the engorged vessels, precisely as catarrh is relieved by copious expectoration.

The most distressing symptom of dysentery (tenesmus,) arises from the extreme morbid sensitiveness of the membrane, in consequence of which it cannot endure the contact even of the ordinary contents of the alimentary canal, much less of the acrid bile, and other vicious secretions, the crude, half-digested aliments, &c. &c. which result from the general disorder produced in the digestive organs. The membrane being thus irritated, excites, by sympathy, the muscles of the bowels and of the abdomen to expel the cause of irritation. The frequent efforts which result, undoubtedly aggravate the engorgement already existing, and exalt every symptom of the disease. The intestines are made to contract irregularly and convulsively upon their contents, in such a manner as to mould them into scybala and violently compress them, without, however, transmitting them along their canal. The fæces, therefore, unless moved by cathartics, are apt to linger in the upper part of the alimentary canal, and to be passed on, only in such quantity as will keep

up irritation. By lingering thus, they also become more acrid, undergoing chemical changes.

The morbid excitement may, for a long time, linger in the mucous coat, but when it becomes extreme, the other tunics of the intestines participate. When the disease terminates fatally, there is ordinarily abrasion of the mucous membrane, or, less frequently, gangrene of the same. In either case, the tunics all suffer.

The causes of dysentery are similar to those which produce mucous inflammation in other parts of the body. Every one is familiar with the intimate vital correspondence, which constantly exists between the skin and the mucous membranes. When, from the influence of external heat, the circulation of the skin has been for some time active, and a greater quantity of blood than usual has been contained in the skin, a sudden impression of cold repels the circulating fluid from the surface upon the mucous membranes. This occurs because the blood, having been in the capillary system withheld in part from the heart, great vessels, and glandular organs, cannot instantly be received by those organs, when it is sent back in such quantity from the surface. They cannot instantly accommodate themselves to this state of things, and therefore the fluids are rejected by these organs, and thrown upon a membranous tissue, nearest like that of the skin, and which rarely feels the vicissitudes of temperature.

In the winter season, the pulmonary mucous membrane is more apt to suffer, because it is often subject to the alternations produced by natural cold and artificial heat. At one moment we breathe an exceedingly cold atmosphere, and perhaps, at the next, one as warm as that of summer.

But, during the summer season, the mucous membrane of the stomach and intestines is the obnoxious part. This is owing to these organs being relaxed and debilitated by the influence of summer heat—also, to the use of a greater variety of crude

aliments, than at other periods. When the copious exhalations which take place from the surface, at such a season, are suddenly suppressed, the fluids are therefore thrown upon the mucous lining of the stomach—small, or large intestines, and when upon the latter, dysentery is the result. Various predisposing and exciting causes may co-operate to effect this state of things—such as the use of crude aliments, of drastic purges, or of ardent drinks; any thing, indeed, which irritates the mucous surface of the large intestines, may invite the repelled excitement to that part.

*Treatment.* I have made the above brief observations, relative to the pathology of this disease, because it is absolutely necessary that, in its treatment, the physician should constantly have in view the proximate and remote causes of the affection. The principal objects to be accomplished by the physician seem to me to be:—1st, To translate excitement to the surface, and to equalize action; 2d, to effect the free evacuation of those feculent matters which linger in the alimentary canal, and irritate its surface by their passage from time to time; 3d, to allay the extreme irritability of the large intestines; 4th, to restore the tone of the alimentary canal.

1. The order in which these ends are sought to be accomplished, depends, in some degree, upon the nature of the cause, and the progress which the disease has made. When dysentery has promptly arisen from repelled perspiration, certainly the most natural indication seems to be to restore the cutaneous secretion. But, when the system is in a state of plethora, this may not be easy of accomplishment, and although action might be produced on the surface, the morbid excitement might still continue in the intestines. A preliminary measure, then, of great importance, and one, indeed, which is useful on other accounts, is, to diminish the amount of the circulating fluid. This certainly will enable us to relieve more promptly an organ which is suffering because it has become the centre of morbid

fluxion. In the onset of the disease, we, therefore, bleed; either from the arm, or, what is undoubtedly more effectual, from the surface of the belly by leeches, if they can be obtained. The next thing to be done, is, to effect a determination to the surface. Nothing can aid more effectually to accomplish this, and at the same time another indication, than the prompt administration of an emetic. Nothing, certainly, can more effectually determine the fluids to the surface, while, at the same time, it diminishes the general and local excitement. But it is not less important for the purpose of evacuating the stomach of those acrid secretions, and ill-digested aliments, which must otherwise pass the tract of the intestinal canal, aggravating the irritation already existing. The article employed for this purpose is, with us, generally ipecacuanha, sometimes, in vigorous constitutions, rendered more energetic by the addition of a small quantity of tart. antim. But, not unfrequently, we find it well to administer an emetico-cathartic, as the evacuation of the bowels is our next indication. For this purpose we generally combine ipecacuanha with calomel, that we may, at the same time, correct the secretions of the first passages. This is especially advisable when the secretions of the liver appear to be redundant, or morbid.

Should there be any inequality of temperature on the surface, it is very important that we should endeavour to equalize it by the application of warmth, or by stimulating applications to those parts which are below the natural temperature. For this purpose, it will often be found necessary to immerse the feet and legs in warm water, impregnated with salt or mustard. When the surface generally, is below the natural temperature, and, at the same time, the skin dry, the immersion of the whole body in the warm bath will be found of eminent advantage. Or, if it be feared that this may harass the patient too much, the application of vapour to the surface may be made through the medium of blocks of wood, plunged in boiling water, and

wrapped in cloths, or of heated bricks, wrapped in wet cloths. These, however, are to be managed with extreme caution, lest the system generally be too much excited.

The action which is excited by the above means on the surface of the body, should be carefully sustained by nauseating diaphoretis, (such as small doses of ipecac. or antimony,) by warm, bland, diluent drinks, and by very carefully protecting the surface of the body from the sudden impression of cold air, while at the same time we avoid the other extreme, of keeping the surface too hot. The remarks of Mosely, in his treatise on the disease of hot climates, are of inestimable value, in this respect, and to them we refer.

When there is evidence of a morbid state of the liver, indicated by the yellow tinge of the skin, and of the tunica conjunctiva, there is manifest propriety in combining calomel, or the blue pill, with our diaphoretic remedies; thus, we often combine one grain of ipecacuanha, with one of calomel, and perhaps five, or ten of nitre, to be given once in two or three hours. As there is generally an indication for the employment of opium, we shall often find it convenient to combine a grain of calomel with from five to ten grains of the pulv. ipecac. comp.

With a view to making a stronger impression on the skin, and to create a kind of excitement which shall be less subject to vicissitudes, blisters are important agents in our therapeutic plan. One of considerable magnitude may be applied over the abdomen, and, should healthy excitement be wanting in the extremities, they may be applied to the ankles and wrists.

2. Our next object, and one of great importance, is to effectually evacuate the intestines, in order that the bowels may not be teased with the occasional passage of irritating scybalæ.—There is nothing in the practice of medicine requiring more nice discrimination, than the employment of cathartics in dysentery. Their neglect is followed by the most unpleasant con-

sequences, and so also is their unnecessary employment. We believe that the more common error is the employment of articles of too drastic a nature, and the use of these at too long intervals.

We shall often have found it necessary to administer a cathartic, at the same time that we commence the use of means for the accomplishment of the first indication. We have already spoken of the employment of an emetico-cathartic, as accomplishing both indications. We almost always commence the treatment of a case by its use. Should other means be preferred, we may give from ten to twenty grains of calomel; and, after two hours, administer the sulphate of magnesia, castor oil, or the compound infusion of senna and rhubarb, in three or four ounces of which, half an ounce of the sulphate of magnesia is dissolved. We have had but little experience in the employment of large and repeated doses of calomel, as recommended by Johnson and others, who have encountered the fatal epidemics of tropical regions. By them we are informed, that such doses of this article by no means create the irritation which is so generally feared. On the other hand, they are said by them, to create gentle catharsis, and rather to allay than to excite irritation in the diseased organs. Such, however, has, I believe, not been the result of experience in this country. We very well know that in other affections, calomel in large and repeated doses occasionally creates a very annoying hypercatharsis, and that, too, when the alimentary canal is not particularly irritable. When it does so, it produces mucous discharges, streaked with blood, and accompanied with tenesmus. Now, this is a temporary dysentery, and if calomel is capable of producing such a state of things, it certainly is not to be regarded as a remedy for the disease, except when given early in the progress of the affection, and for the purpose of emulging the biliary system; or, subsequently, in small doses, as an alterative, and accompanied with anodynes.

The French practitioners of the present day, generally reprobate the employment of this article, with great emphasis.—In part, they are correct, but undoubtedly they are too hostile to the employment of all cathartics in this disease.

There may, it is true, occur cases, or even epidemics of dysentery, in which it may be imperiously necessary to repeat cathartic doses of calomel. This is when the biliary system is primarily disordered, and dysentery results, as it sometimes does, from the redundancy of acrid secretions furnished by the liver. Then, undoubtedly, the irritation produced by mercurial catharsis will be more than counterbalanced by the removal of a greater source of irritation. It is necessary that we should nicely discriminate in such cases. If there occur a bilious aspect of the countenance, tenderness and tumefaction in the region of the liver, dark bilious evacuations, the employment of calomel, in liberal doses, is certainly justifiable, until we can ascertain what its effects are likely to be, and then it may be repeated *pro re nata*. Under such circumstances, the good effects of the remedy will be aided by the inunction of mercurial ointment over the region of the liver and stomach.

But, in ordinary cases, when we have exhibited one mercurial cathartic, we deem it most prudent, on the next occasion, to employ something more bland. Some practitioners are in the habit of employing divided doses of cathartics, at frequent intervals, together with alterative and anodyne medicines; but this appears to us to be a practice of an exceedingly pernicious character. The frequent passage of the feculent matters, in small quantities, along the alimentary canal, is a source of continued irritation, and is one of the most unpleasant circumstances which we should counteract. Cathartics, thus employed, tease incessantly the irritated organs, without giving them any opportunity for repose.

Now, it appears to us, that in dysentery it is necessary to take the business of evacuating the bowels completely out of the hands of nature. We should suffer nothing to be evacua-

ted early in the disease, except by the action of some mild cathartic, made to act promptly and sufficiently, in order that, during the interval, we may place the diseased organs in a state of as complete repose as possible. Having freely evacuated the bowels in the onset of the disease, the repetition of a cathartic is to be determined by circumstances. Generally it will be necessary, early in the disease, to evacuate the bowels as often as every day, by some cathartic which shall act quickly, without creating too much irritation. If we delay longer, the fæces will begin spontaneously to pass in the form of scybalaë. But, if but a small quantity of feculent matters should be passed by the action of a cathartic, and the passage should be attended with an aggravation of pain and tenesmus, it shows that they are too frequently given, and a longer interval should be suffered to elapse. When, at length, the feculent matters begin to pass, of a natural appearance, and spontaneously, cathartics become unnecessary.

When scybalaë pass frequently, together with mucus and blood, we may be sure that there are substances lingering in the canal which ought to be at once evacuated. It is obviously necessary that, for the purpose of managing correctly the action of cathartics, the evacuations should be constantly inspected by the physician himself. Injections are abundantly employed in dysentery, but not of a cathartic nature. In the employment of such, we believe there is no advantage, but rather mischief, because they irritate the diseased portion of the canal, without reaching that part in which the fæces are observed to linger.

3. Our next object should be, to allay the irritation and inflammatory excitement of the mucous membrane. This will have been in part accomplished by the means which we shall have used for the purpose of translating action to the surface, and for the evacuation of irritating sordes. But it is obviously necessary that we should endeavour, at the same time, to accomplish this by means more direct. Blood-letting is not less

important for this purpose than for favouring determination to the surface. It is true, that inflammations of the mucous membranes are not so much under the controul of sanguineous depletion, as those of some other tissues; yet they are of great importance, and should be promptly employed. Local bleeding by leeches, or cups, is undoubtedly preferable, as thereby we effect more immediate relief, without so much exhausting the powers of the system. The pulse is not always our most infallible guide, in regard to bleeding. Very frequently the irritation of the abdominal organs is so severe that the pulse is subdued, small, and feeble. When this is the case, we should rather be governed by the tenderness of the belly, the pain experienced at stool, and the general evidences of irritation.—When such a state of things occurs early in the disease, and in a constitution not previously exhausted, we may bleed without fear, and repeat according to its effects. The pulse will rise under these circumstances, and the system recover itself. In regard to the repetition of bleeding, we are to be governed by its effects—also, by the appearance of the blood. If it coagulates firmly, and especially if there should appear any thing of an inflammatory crust upon it, we may persevere. But if it should present a dissolved appearance, we must stay our hand.

The next most important agent, for the purpose of allaying irritation, is opium. Nothing can be more necessary than the judicious employment of anodynes in this distressing malady. I have stated that, in the intervals, between the times of employing cathartica, our object should be to place the irritated organs as nearly in a state of rest as possible. As soon, then, as our evacuants have produced the desired effect, we should endeavour to accomplish the object by the employment of liberal doses of opium. The best form in which we can employ this article, is that of the Dover's powder, in ten, or fifteen grain doses, repeated once in two, three, or four hours, as circumstances may demand.

In aid of this means, anodyne enemata are generally indispensable. To lubricate and sooth the irritated membrane, at the same time, the common practice is to prepare enemata of starch, barley water, or flax-seed tea, and to add to eight or ten ounces of this, one or two drachms of the tinct. of opium.— Thus administered, the remedy is found to give even more prompt relief than when given by the mouth.

Opiates in most diseases are merely palliatives, and often permanently aggravate disease, though for a time they treacherously quiet the distressing symptoms. In dysentery, they may, it is true, for a time directly aggravate the febrile excitement; but they obviate the principal cause of that excitement, which is local irritation. They place the intestines in a state of repose, prevent the constant transmission of acrid sordes along the diseased surface, and thus give nature an opportunity to repair the ravages of disease. In dysentery, therefore, we consider opium to be not merely a palliative, but a remedy of indispensable utility.

But it is not merely by its anodyne influence that it is beneficial. Opium acts as an efficient astringent, to suppress the too copious secretion which may be taking place from the diseased membrane. At the same time that they thus repel the fluids from the diseased tissue, they give to them a centrifugal tendency, and, when properly managed, powerfully determine to the surface.

*(To be concluded in our next.)*

## Analytical Reviews.

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### ART. I.

SELECTED FROM THE MEDICO-CHIRURGICAL REVIEW.

*Illustrations of some of the Principal Diseases of the Ovaria, their Symptoms and Treatment: to which are prefixed, Observations on the Structure and Functions of these Parts in the Human Being and in Animals. By Edward J. Seymour, M. D. &c. &c. Physician to St. George's Hospital. 8vo. pp. 128, with 14 Lithographic Plates, 1830.*

Dr. Seymour deserves great praise for the zeal with which he prosecutes the study of morbid changes in the human body, and the present work affords ample proof of the talent which accompanies and directs that zeal.

In the first chapter of the work Dr. Seymour gives a concise but clear sketch of the structure and functions of the ovaria, first in the human subject, and then in various animals. This chapter displays great research, and much ingenious reasoning. It would be impossible for us to do it justice by extract or analysis, since it is, in itself, a close analysis and critique.—But we recommend it to the attentive perusal of the reader.—One passage only, near the end of the chapter, we shall here introduce, as it contains Dr. Seymour's conclusions respecting the long disputed subjects of Corpora Lutea.

"It must be admitted by all that corpora lutea exist without impregnation occasionally. They are figured by Valisneri and Sir E. Home; and the observation has been confirmed by many living physicians and surgeons. That it occurs after impregnation, is certain, and proved by the observations of Haller, who traced their gradual formation; but if, as supposed, by Sir E. Home they are, necessary to render the ovum fit for impregnation, they should exist nearly always in virgin animals at the time of puberty. This is by no means the case. It has occurred to me to have examined the ovaria in the human being, and in animals at the period of puberty,

in very many instances; many had ova ready for impregnation, large, projecting, vascular, yet no corpora lutea were visible, which induces the following conclusion, that in every instance these animals must have been barren, or that the formation of corpora lutea is not a necessary preliminary process to impregnation.

"From these premises, comparisons, and observations, my opinion has been formed, that corpora lutea are the result of the change which takes place in the ovarium by the bursting and discharge of the ovum, occurring rarely in virgin animals, because the bursting of the ovum is not a frequent but only possible occurrence, but always following impregnation, and diminishing as gestation proceeds.

"It may here be asked, of what advantage is it to determine accurately the formation of these bodies? We have seen that their production is probably influenced by strong moral as well as physical impressions, the result of great vascular excitement of the part, and their absorption effected by great activity in the vessels of that system. Any deficiency, then, in the quantity of vascular excitement necessary—any obstacle to the exercise of absorption—would produce changes in these parts differing from the natural ones, which they were intended to undergo,—would, in a word, produce disease; and it remains to be discovered whether any of the serious and complicated diseases of these organs are to be traced to alterations which the corpora lutea undergo from any or all of these causes." 33.

Seven beautifully executed plates illustrate the anatomy and physiology of the ovarian organs, comparative and human.

In the 2d chapter Dr. Seymour enters on the subject of structural diseases of the ovaria. These diseases are arranged under three heads—those arising from inflammation—those arising from enlargement of the natural structure, and those from addition of new structure formed by disease:—these last including scirrhus and fungoid growths—lastly, those deviations from natural structure which result from obstruction of function, and also congenital malformations.

"Inflammation of an acute form attacks the substance of the ovarium, which has been found in a state of suppuration after acute inflammation of the womb and its appendages in women who have died in child-bed. This likewise does not appear to be marked by any peculiar symptom: the suppuration in such cases has been of the diffuse kind.

"Softening also takes place as the result of acute inflammation of these parts. A case recently occurred under my observation, where death from inflammation of the womb occurred about three days after delivery. The whole of the cellular membrane under

the peritoneal covering of the uterus, and under that lining the pelvis, was in a state of diffuse suppuration, and the absorbent vessels loaded with pus could be traced nearly as high as the diaphragm.—The ovaria were in a state of extreme softness, presenting the appearance of a vascular pulp, but no purulent matter was visible.

"The substance of the ovarium is likewise subject to inflammation of a chronic form, which may certainly exist independently of inflammation of the substance of the uterus or its coverings. Abscess of the ovarium does indeed appear to be a rare disease, but it nevertheless occurs; and indeed, in reasoning on the subject, it would not be easy to account for the difficulty or impossibility of inflammation and its result, suppuration, occurring in the loose cellular texture of this organ. The following case of this disease will best describe the symptoms and post-mortem appearances.

"A young woman, aged 17, of the lowest and most unfortunate class of females, was a patient of Guy's Hospital, under the care of Dr. Bright, in the autumn of 1823.

"She was greatly emaciated, had a very quick and feeble pulse, a shining red tongue, and constant watchfulness. She suffered from constant and irrepressible diarrhoea, and for many successive days vomited both food and medicine: the catamenia were absent. The case made a considerable impression on my mind, from the extreme emaciation and colliquative diarrhoea, without any evident symptoms of disease of the lungs or intestinal canal. After having been in the hospital about two months, she suddenly complained of most acute pain over the abdomen, and in a few hours expired.

"On opening the abdomen, death appeared to have been produced by the effusion of a large quantity of pus into the peritoneal cavity, which escaped from an abscess in the right ovarium, which abscess appeared to arise from suppuration in the substance of the viscus, similar in every respect to phlegmonous abscess in any part of the body, and not connected with any cyst or change, or addition of structure, the product of morbid growth." 40.

Chronic inflammation of the ovarium, like chronic inflammation elsewhere, ends in thickening and enlargement of the part—such cases often remaining stationary for many years. Dr. Seymour hazards some speculations on disease of the Graafian vesicles, or corpora lutea, as occasioned by excited feelings connected with the uterine system; and queries whether those instances of purulent depôts, found in cysts of the ovaria, might not be owing to some of the superficial vesicles having undergone rupture and change from the above sources of excitement, independent of pregnancy, and arrived at the purulent state described by some authors. The fluid of the Graafian vesi-

cle is liable to disease. It is often red, and even black, from admixture of blood; and, from the following case, it appears to our author that it may become altered from imperfect fecundation.

"A woman, æt. 31 years, was admitted into St. George's Hospital in November last, labouring under ascites and anasarca, depending on the heart becoming enlarged after repeated attacks of rheumatic inflammation. By moderate blood-letting and ordinary diuretic medicines, combined with mercury, her dropsy entirely disappeared; and feeling no further inconvenience, she was dismissed at her own request, warned, however, that the smallest imprudence would bring back her disease. She remained at home a month, during which time she cohabited with her husband: the symptoms returned; she was admitted again, relieved, but died suddenly six weeks after her re-admission; a death explained by the enormous dilatation of the heart, and an aneurism of the substance of the left ventricle, immediately below the mitral valves. A very curious appearance was found in the right ovary; a collection of serous fluid, about the size of a large pea, contained in a delicate membrane, of an elongated oval form, was found arising from the coats of the ovarium; at its origin having a communication with the internal structure, and appearing exactly as if it had escaped from thence: to the other end of the fimbriated extremity of the fallopian tube adhered. It appeared to me that a Graafian vesicle had burst; that, not having freed itself entirely from the coats of the ovarium, it could not pass into the fallopian tube, but remained embraced by that organ, and underwent a partial development." 44.

By far the most common form of ovarian disease, however, is the conversion of this organ into numerous cysts, which, when containing fluid, is termed ovarian dropsy. Under this denomination have been included simple serous cysts, formed in the broad ligaments and fallopian tubes.

"All these, confounded together under the name of hydatids, are distinguishable from the latter, by being nourished by vessels supplying them from the parts in which they are formed, vesicles to which the name hydatid is attached being nourished by their own blood-vessels, or, in other words, having an independent life. Occasionally one or both ovaria are converted into simple cysts; the whole of the cellular substance and vesicles disappearing, that which was the fibrous coat of the ovarium becoming the fibrous coat of the cyst." 45.

The first and simplest form of the disease, is an enlargement or alteration of the corpora Graafiana. At an advanced period

of life, on cutting into the ovarium, one or more of the Graafian vesicles are found dilated, and these bodies, generally the size of a millet-seed, become as large as an almond—are filled with limpid fluid, and their internal membrane becomes very vascular. Occasionally they enlarge to a greater degree, and always on the side nearest the proper coat, which often becomes distended to an enormous size. In this way, it appears to Dr. Seymour that a large single cyst, with a fibrous covering, may be formed—and this, he thinks, is the simplest form of ovarian dropsy, the internal membrane secreting a prodigious quantity of fluid. The same opinion is entertained by M. Cruveilhier. One or two of the Graafian vesicles undergo this change, when the disease consists of one or two cysts filled with fluid.

“A married woman, æt. about 60, was admitted into St. George’s Hospital in September, 1828, in order to undergo the operation of tapping for the third time in five years, rendered necessary in consequence of the sufferings she experienced from the pressure of the tumor. About sixteen pints of ropy albuminous fluid, of a chocolate colour from admixture of blood, were drawn off. The patient, whose health was much broken, did not rally after the operation; and she died, as is often the case, not from inflammation occurring after the operation, but with symptoms of exhaustion, a week from its performance.

On opening the body, a large fibrous cyst was visible, pushing forward the broad ligament as far as the fundus of the uterus; and on the opposite side expanding into a sac, which reached nearly to the epigastrium, and contained several pints of coffee-ground fluid. At the inferior part of this sac were the remains of the ovarium, very much shrivelled and imperfect on the surface internal to the cyst. It appears to me that this is a specimen of the cyst which I have endeavoured to describe; an enlarged vesicle, such as we often see in its earlier stage, pushing forward and gradually dilating the fibrous coat of the ovarium, the remainder of the ovarium remaining attached to the inferior portion of the cyst.” 47.

It is to this form that the name encysted dropsy is strictly applicable, and is the disease which exists so many years without much distress, furnishing, by tapping, such wonderful quantities of fluid. Much solid fibrous structure is occasionally connected with these collections; but more of this hereafter.

“The ordinary symptoms attendant on ovarian dropsy are very various, and by no means severe, and are limited principally to the

effects of pressure on neighbouring parts. Where the increase of the disease is slow, the patient often suffers no other inconvenience than from swelling of the leg on the side on which the tumor is the largest, or from the unsightly bulk of the abdomen, which she is unable to conceal. Patients have lived in this manner thirty or forty years, with a very considerable enjoyment of the comforts of life, and even the pleasures of the world, the accumulation of fluid rendering it necessary from time to time to perform the operation of paracentesis. In cases of this kind, symptoms dependant on unusually rapid increase of bulk, or pressure on any particular organs in the abdomen, occur. Thus heartburn, vomiting, and purging, difficulty of passing urine, or violent and severe head-ache, are met with, which are entirely removed if the bulk of the tumor be reduced. There is a case now under the care of Mr. North, of Berkley-street, where the patient has for many years been unable to pass her urine, except by the daily use of the catheter; and this appears to arise from the natural situation of the bladder being altered by pressure, and perhaps by the adhesion of the tumour." 49.

When both ovaria are diseased in this way, the catamenia are always absent—when only one is affected, they are irregular or defective.

"In many cases the diagnosis of this disease is sufficiently easy.—Pain has been felt in either iliac region, succeeded by a tumor, which can be traced low into the pelvis, and the uterus is found on examination dragged upwards by the morbid growth. The history likewise assists us: it has followed miscarriage or delivery; at other times it occurs in females where pregnancy is out of the question, or at a time of life when it is impossible, and yet where the unbroken health renders ascites a very improbable occurrence. Occasionally, however, independently of its complication with pregnancy, it is difficult to distinguish this disease from accretions of the peritoneum with effusion, and still more so from ascites, the result of visceral obstruction; often also it occurs together with ascites.

"It appears to me that the following is one cause of the mistake of ovarian tumors (in which some of the cysts, or the whole cavity, if filled with fluid, the parietes consisting of solid matter) for ascites with visceral obstruction. It often happens that the increase of the ovarium is slow at the commencement, and extends by a narrow neck into the abdomen before it is perceived: adhesions take place between it and the neighbouring parts, and from that time the increase of its growth is rapid. Hence, in some cases, the patient persists in having first perceived it in the right or left hypochondriac regions, and the solid portions give to the touch the feeling of enlargements of the spleen and liver, when, if ascites be also present, the combination is very perplexing." 50.

When ascites is present, a different feeling is communicated to the hand on striking the abdomen, whether in front or on the hypochondria. When in the recumbent posture, the fluid gravitates, in ascites, into the hypochondria and lumbar regions—in encysted dropsy, the fluctuation remains circumscribed. If there be such air in the intestines, as well as fluid in the peritoneal cavity, the fluctuation will be much more sensible in ovarian tumor than in ascites.

“And in more cases than one most experienced practitioners have been surprised at the flow of the albuminous dark-coloured fluid of encysted dropsy, during the operation of tapping, instead of the transparent scum of ascites, which the very sensible fluctuation had led them to expect. Indeed, on striking the abdomen in encysted dropsy, the fluid often appears as if only separated from the hand by some very thin medium, and this sensation has occasionally led to the operation of paracentesis, when no fluid has followed the introduction of the trocar.” 52.

Although this disease continues, in general, through life, there are a few instances on record, where adhesions have taken place between the distended cyst, and the colon, through which a quantity of offensive fluid has passed off by stool, with ultimate recovery. In other instances, the discharge has made its way by the vagina, and could be accelerated by pressure. Even a spontaneous rupture of the abdominal parietes at the umbilicus has given exit to the contents of an encysted dropsy. Various sudden and mysterious terminations of this disease are recorded; but they are, at best, suspicious, and, at all events, so much out of the ordinary course of nature, that they cannot be taken into account in practice.

*Schirrhus of the Ovarium.*—This is a vague term applied to various diseased states of the ovary. In a comprehensive meaning it represents equally the degeneration of the ovary by age, and its enlargement by the deposition of any solid structure. It is often applied to that form of ovarian disease in which a portion of the tumor is solid, and a portion made up of cysts filled with various kinds of secretions. Dr. Seymour here restricts the term to that form of the disease characterized by Dr. Baillie in the following words:—

“The ovary (says he) is much enlarged in size, and consists of a very solid substance, intersected by membranes, which run in various directions. It resembles exactly in its texture the tumors

which grow from the outside of the uterus, and I believe has very little tendency to inflame or suppurate." 58.

The ovaria are rarely affected in this way. A very remarkable specimen fell under the notice of Dr. Robert Lee, one of the most industrious and rising physician-accoucheurs of this metropolis.

*"August 9th, 1828.*—'At Blandford Mews I opened the body of a woman upwards of seventy years of age, who had died, after long suffering, from a tumor in the hypogastrium, with ascites.—An induration was first perceived in the abdomen, between the naval and right illium, nine years ago, after she had suffered considerably for some months from sense of weight and dull pain in this situation. The size of the tumor gradually increased, and about eight years ago (the belly being greatly distended with fluid,) the operation of paracentesis obdominis was performed by Mr. Blagden, and several pints of water were drawn off. In the course of the succeeding years the operation was frequently repeated; but the quantity of fluid evacuated gradually diminished, whilst the large indurated moveable mass came to occupy the whole of the lower part of the abdomen. She sunk gradually, from the interruption to the circulation caused by the tremour.'

*"Sectio Cadaveris.*—'On opening the abdomen there was found attached to the fundus uteri, on the right side, an ovarium tumour, weighing seven pounds, of a dense and fibrous structure. Several large cysts, containing a fluid varying in colour and consistence, adhered to the upper surface of the tumour. The peritoneum, in contact with its anterior surface, was converted into a cartilaginous substance, about a quarter of an inch in thickness. In the proper tissued of the uterus, at its fundus, was observed a fibro-cartilaginous tumour, about the size of a large orange. In other respects the uterus was healthy." 59.

These scirrhus tumours are said never to ulcerate, though continental pathologists frequently apply the term cancerous ulceration to them. There is, however, in the College of Physicians, a specimen of this rare disease preserved by Dr. Baillie. It is a section of a scirrhus ovarium, resembling that of a scirrhus testicle, and beginning in various places to soften down.

*Malignant or Fungoid Disease of Ovarium.*—"The formation of the next, or most complicated forms of ovarian tumour, is very difficult to explain. They consist, first, of numerous cysts, with more or less fluid contents, sometimes with bony or earthy matter contained in them; often a fatty secretion, resembling lard; some-

times penetrated with long fine hair, without bulbs; but more frequently filled with albuminous secretion of varying tenacity and colour. Sometimes these secretions resemble gruel in appearance: there is often matter like soot mixed with the fluid. At other times the secretion is the colour of mahogany, from admixture of blood; and not unfrequently the liquid evacuated from one of these cysts, by the trocar, resembles, in consistence and colour, the medicine well known under the name of Griffith's mixture.

"2dly. A single large cyst springs from the ovarium, and contains within it tumours varying from the size of a pin's head to that of an orange. Sometimes the great portions of the parietes of the cyst consists of tumours growing between the external and internal, or secreting coat, the interior of the cyst having the tumours projecting into it, being filled with fluid secreted from the serous lining. The tumours, when cut into, present a semi-fluid, gelatinous substance, with white bands running through it, between which bands are smaller cysts, containing the same viscid glue-like matter." 61.

The generative organs are peculiarly liable to the the latter form of malignant disease. The testicles in man, the mammae and ovaria in women, are its frequent seats. These malignant forms generally make a rapid progress—seldom lasting more than a few years at most—often terminating fatally in a few months. Cancer of the stomach is more slow than fungoid disease of the ovaria. The existence of this terrible complaint may be known in the living body by the want of nutrition and broken health of the patient—the unevenness and rapid growth of the tumour—the simultaneous enlargement of glands in other parts of the body—and the occasional occurrence of lancinating pains in the swelling. The pulse is usually quick and feeble—hectic fever arises as the disease advances—and there is an inexpressible sense of debility.

Our author here adverts to the pathological views of Drs. Baron and Hodgkin, in respect to the formation of these tumours.

"Dr. Baron, following some rather indistinct views brought forward by Boerhaave and De Haen, conceived that the tumours we have just been describing were hydatids, whose contents became more or less inspissated by time, and whose coats underwent changes of different degrees of density, from simple thickening to cartilage. The contents became coloured also, by the rupture of blood-vessels: and, by this simple view, he accounted for all the various secretions with which these tumours were found filled. For the sake of avoiding argument as to the independent life of hydatids—

argument quite unnecessary, as Dr. Baron thinks, to the pathological reasoning—in his last publication he has substituted the word vesicle in their place, as being liable to no such cavil.

“Dr. Baron ascribes the formation of these vesicles to a change in the lymphatics of the part; the extremity of a lymphatic being closed, and thus forming, when distended with fluid, a pyriform vesicle, or the vesicle being formed at the intersection of numerous lymphatic vessels; of course this latter occurs oftener in the parenchyma of a viscus than on the surface. He applies this reasoning in detail, to account for the formation of malignant tumours in every part of the body. A practical observation is derived from the experiments of Dr. Baron, which may lead to important results,—that what we call malignant disease (cancer, fungus hæmatodes, medullary tubercles,) may be produced in any animal by bad nutrition, arising from bad air and confinement. These conclusions of Dr. Baron can be strongly corroborated by my own experience. In the course of last summer, I was employed in dissecting several animals which died in the menageries of this city, principally with a view to the physiological observations in the first chapter. Almost without exception animals of the classes mammalia and birds died of tuberculous disease, affecting all the viscera of the body.—The tubercles were principally of the kind which we call tubera circumscripta, and which have received in the French school the name of ‘encephaloides,’ and are found often affecting internal viscera, when cancer affects the glands of extremities. Seclusion in close cages, bad ventilation, and a want of their natural food, had produced this result. Does not this lead to the conclusion, that free air and nutritious diet, with an approximation to natural habits, is the course most likely to save those who are attacked, among our own species, by tuberculous disease?

“Dr. Hodgkin’s views, that encysted tumours of the ovarium, as well as malignant tumours, arise from the development of serious cysts, have a considerable similarity to those of Dr. Baron. Dr. Hodgkin’s labours are not yet entirely before the public; it is therefore improper to comment long on them. They are well worthy, and will doubtless receive, the attention of the profession. Dr. Hodgkin, as far as our present subject is concerned, conceives that a large cyst, which he calls the superior cyst, is first formed, from the inside of which tumours grow, of different sizes and shapes, pushing up the internal membrane of the superior cyst, which is reflected over them, as the pericardium and pleura are in the natural cavities of the body, lined with serous membranes. These secondary cysts contain smaller. Sometimes these smaller grow so fast as to strangulate one another, and the death of some of them causes altered appearances in the secretions of the parts. Sometimes they burst through the reflected membrane, and present a fungoid and fringed appearance, which

may be seen in preparations in most collections of morbid anatomy.

"These views are very clearly and scientifically expressed in Dr. Hodgkin's paper: they do not, however, go to the extent of explaining the constitutional origin of the disease. In this respect Dr. Baron has gone further, referring these changes to disease in the absorbent system." 66.

Dr. Seymour next details some cases of this malady—some of which had been under his own care, others in the hands of his friends or acquaintances. The cases are illustrated by beautiful plates.

We shall glance at two or three of these cases.

*Case. 1.* This was a lady, æt. 30, who was delivered of her third child in June, 1827. In the following September she first perceived a tumour in the left hypochondrium, unaccompanied by pain or inconvenience. Suddenly, in November, the whole abdomen became distended—and, on examination, a solid tumour was found to occupy the whole left side of that region, while a considerable fluctuation was perceptible in the right. The patient was unable to lie down in bed, or on either side. The pulse was quick and feeble—there were evening accessions of fever, followed by profuse perspirations—scanty urine—total loss of appetite and sleep. Many eminent physicians and surgeons of London visited the patient, and many different opinions were given. The spleen was suspected.—Paracentesis was performed, and 22 pints of ropy fluid were drawn off, with considerable temporary relief. The operation was obliged to be repeated month after month, the solid structure constantly increasing in size. One of the incisions was burst open by the distending force ab interno, and two or three pints of a puriform fluid daily escaped, with temporary alleviation of suffering. But the patient was worn out, and died in the succeeding May.

*Dissection.*—"A large tumour occupied the place of the left ovary, and filled the cavity of the pelvis, and great part of that of the abdomen. It was completely adherent to the front and left side of the abdominal parietes, and to the back part also on the left side, nearly as far as the vertebræ, the muscles being very thin, and having partly begun to assume the same appearance of malignant disease which the tumour itself possessed. Great part of the tumour was solid, being composed, for the most part, of transparent white gelatinous substance, with membranous partitions, containing a number of globular cysts filled with the same jelly; some others with thin transparent fluid; and one or two portions of the tumours

being yellow, and harder in consistence. The greater part of the solid tumour was situated on the left side, close to the parietes, and extended from the pelvis to the ribs: but masses of the same appearance, and varying in size from that of an orange to a pea, were scattered around the principal cavity, which had been tapped, and which was filled with thick purulent fluid. The whole of the external surface of the cyst and of the tumours was smooth and uniform; but the internal surface was very irregular, from the projection of these numerous globular portions of tumour into the interior of the cavity; and this internal surface was in a very vascular state, while sections of the tumours exhibited very few vessels.—The inflamed appearance of the principal cavity was much greater than is usually met with in the malignant disease of the ovarium.

“The peritoneal surface of the cyst, and that of the contiguous intestines, were much inflamed, and covered with masses of recent lymph, and the cavity of the peritoneum contained a few ounces of serum; but, except at the lower part, and where it was thus in contact with the cyst, the inflammatory appearance of the peritoneum was inconsiderable. The abdominal viscera were raised by the tumour high within the chest, and pushed across to the right side and upper part of the abdomen, but were otherwise healthy. The right ovarium was much enlarged and hardened, but did not present any appearance of malignant disease.” 70.

The next case was one for which our author is indebted to Dr. Henry Davies.

*Case. 2.*—“In October 1828, Dr. Davies was called to see Mrs. J. æt. 45, of a full habit, sallow complexion, complaining of violent pain across the loins, with copious watery discharge from the vagina. These complaints had existed eight months; but she had felt a degree of uneasiness in the region of the uterus nearly four years. The catamenia had ceased a year before the present visit; bowels regular, pulse 76 to 80, urine free. On examination per vaginam. the os uteri was not tender to the touch, but the uterus was enlarged anteriorly. She was much relieved by local abstraction of blood, mild aperients, narcotics, and the tepid bath, during two months.—On the 17th December she was attacked with violent and excruciating pain of the back, inferior part of the abdomen, and internal parts. The uterus was much increased in size, os uteri very sensible to the touch, and somewhat open.

“On the 28th December, and 18th of January, consultations were held on the case, the result of which was, that the uterus was enlarged either throughout its substance, or some body within distending it. The os uteri being distended, the orifice half an inch in diameter, and the cervix uteri obliterated, the tumour was not so hard as carcinoma, nor so firm as fleshy tubercle. The question then arose whether it was polypus, or medullary sarcoma?

"At the end of January the patient was ceased, after an interval of tranquillity, with most excruciating pain, accompanied with violent expulsive efforts. Several lumps were discharged from the vagina, small portions of which remaining, presented a ragged appearance, somewhat fleshy.

"After this, the uterus became much diminished in size; the os uteri regained its natural state, and was by no means so sensible to the touch; but a tumour was now found, on examination, apparently external to the uterus and posterior to it, between the uterus and sacrum, in the recto-vaginal septum, rather more than an inch above the cervix uteri, of a nodulated shape, covered by the membrane of the vagina. The report on the 17th February was, that she had had one violent paroxysm since the last report; pulse 84; bowels and urine regular; discharge less offensive; pains less frequent. On the 25th the tumour posterior to the uterus was much enlarged, projecting below the os uteri, which appeared puckered. The tumour is now perceptible above the brim of the pelvis, its apex, in the left iliac and inguinal regions. The patient has lost flesh, and the complexion is still more sallow. In March the tumour was enlarged, and apparent above the brim of the pelvis, at the right groin. In June, having been to the Bank on urgent business, on her return the patient was attacked with rigor, followed by severe abdominal pain; the third day after which she died.

"*Sectio cadaveris.* The immediate cause of death was an attack of enteritis. The parietes of the abdomen were fat; and the omentum loaded with fat, and adherent, by its inferior edge on the right side, to a tumour. On removing the omentum, the intestines were found much distended with air, glued together by effusion of lymph, and about three pints of whey-coloured serous fluid in the cavity of the abdomen. The uterus was enlarged, and its fundus situated above the brim of the pelvis, in the left inguinal region: the left ovary and fallopian tube sound; the right merged in the tumour. Under the peritoneal coat, near the fundus, several fibro-cartilaginous tumours were found, of a dense structure and yellowish colour. Occupying the right iliac and lumbar regions was a large tumour, with an irregular and lobulated surface, varying in colour from a light red to nearly black. It adhered to the caput coli, and all the adjacent parts, filling nearly the whole of the pelvic cavity, passing behind the uterus, between the rectum and vagina, forming a projecting tumour in the vagina, pressing the uterus upwards and forwards towards the left side. This irregular mass, when cut into, and which appeared originally to be formed of the right ovary, presented a great variety of appearance, of which it is difficult to convey an accurate idea. In some parts there were irregular-shaped cavities, containing a soft matter, having the appearance and consistence of brain, in some parts of gelatinous con-

sistence: no part appeared organized or cartilaginous. When the soft matter was washed away, a large mass of fibrous matter, similar to that on the uterine surface, remained. On opening the uterus the os uteri was found entire, but soft and altered in structure: the cavity of the uterus contained a quantity of dark ash-coloured purulent fluid. The whole original texture of the uterus was diseased, a ragged fibrous substance, of fungoid growth, springing from its surface throughout. Several small fibro-cartilaginous tumours seemed growing also from its inner surface. The original fungoid growth which the uterus contained had been expelled from time to time, which afforded momentary relief from the occasionally insufferable pain which the patient endured." 74.

*Case 3.* Margaret Webb, æt. 52, was admitted into St. George's Hospital on the 11th June, 1829. She had had no evacuation from the bowels for more than a month. On examination per vaginam a tumour was found, about the size of an orange, adhering to, and external to, the upper part of the vagina, so pressing on the rectum as to render the passage of a gum elastic tube very difficult, and the ordinary administration of an enema impossible. Two months previously she was attacked with severe pains in the right hypogastric region, which still continued. The constipation had been gradually increasing for two years. The countenance was pale and sallow—pulse quick and weak—tongue furred. Mr. Babington endeavoured to return the tumour, conceiving it to be the ovary.—Some adhesions gave way, and the tumour receded out of reach. One of the small cysts, however, gave way, and its contents were extravasated into the abdominal cavity. Inflammation followed, and terminated fatally.

"On opening the body, the peritoneal covering of the bowels was seen much inflamed, and the convolutions of the intestines glued together by recently effused lymph. The upper portion of the intestines were greatly distended by fæces. Opposite the commencement of the first lumbar vertebra, the great intestine was found much thickened, to the extent of nearly three inches; and at the centre of this thickened portion the cavity was so entirely obliterated that even fluid could not be made to pass through it. The internal surface of the thickened intestine was partly ulcerated. On examining the uterus, the right ovary was found changed into a mass of soft matter, not very dissimilar to the substance of the brain. This matter, more or less fluid, was arranged in cysts; one of which having given way, in the endeavour to restore the ovary to its natural position, had poured out its contents into the peritoneal cavity. The tumour had adhered to the posterior and in-

terior part of the fundus uteri, by the opposite peritoneal surfaces, thus forming the tumour felt on examination per vaginam." 78.

We must now dedicate a few pages to the subject of treatment.

We are glad to find our talented author speak confidently on this point. "If, after considering *seriatim* the diseases of this organ, we proceed to seek for remedies for its various affections, we shall find that we possess very powerful means of subduing disease, and still more effectual ones of calming and alleviating the distress arising from an acknowledged incurable state." Dr. S. hopes, and so do we, that medical men will not give up their whole attention to the investigation of diseased structure, but allot a portion of it to the search after remedies.

We need not dwell on the treatment of acute inflammation of the ovaria, which is the same as for a similar inflammation in any other part. Local depletion and perfect quietude are the essentials. In simple encysted dropsy, the excitement of the urinary and other secretions or excretions has not the beneficial effects that are found to result in ascites or anasarca. But where general effusion into the peritoneal cavity has occurred, the increase of such secretions are useful. The infusion of *pyrola umbellata* is much recommended by Dr. Seymour—a pint daily. To emetics, as promoting absorption, Dr. S. seems partial, and relates some curious cases of the surprising removal of glandular swellings by the operation of vomiting.—These we need not detail.

"It is obvious that the sweeping objection which would exclude blood-letting in this disease, must have arisen from misunderstanding its pathology; when accumulation of fluid or growth are proceeding rapidly, when there is a quick pulse, irregular heat of skin, and acute pain in the part, it is obvious that inflammatory action is going on within the cyst, and will probably eventually be extended to the neighbouring peritoneum; the fluid secreted is mixed with shreds of lymph, or thickened by the diffusion of purulent matter; under such circumstances the use of the lancet is employed with much benefit. Even when great depression of vital power has apparently existed, the relief obtained has been very great, and similar to what is experienced in inflammation of an acute nature, when seated in other serous membranes. The pulse has risen in force and diminished in frequency under the flow of blood; the crassamentum has been unusually firm, and the buffy coat very distinct on the coagulated blood. The oppression under which the patient laboured has vanished under the repetition of the treatment,

and although the disease has been by no means cured, the strength of the patient has been saved, and she has perhaps been brought into the situation in which paracentesis may be employed without risk. It is in such cases that mercury is useful, and as in other inflammatory diseases these remedies appear to be nearly similar in their effects, one diminishing, the other altering vascular action.—The comfort experienced after such loss of blood, by the administration of opium, is certainly equal to, if not greater, than that which occurs in inflammation affecting vital organs, and seems to realize the feeling and almost poetical expression of the late Dr. Currie, of Liverpool: "The patient sinks into a sleep, which is ill exchanged for the realities of life." 96.

Moderate purgation, by removing flatulence and fæcal accumulations, is useful; but hypercatharsis is distressing, and may prove dangerous by breaking one or more of the cysts in the act of straining.

Morgagni, and many others since his time, appear to have entertained great reluctance towards the operation of paracentesis. But the moderns have lost all dread of this kind. Our author steers a middle course—the "*auream mediocritatem*"—avoiding a too early recourse to the trocar on one hand—and a too fastidious delay of surgical aid on the other, by which the patient is subjected to a painful, almost unendurable distention.

"Two methods have been proposed then for emptying the cyst, and for promoting its entire contraction.

"1. A considerable incision, in order to empty the cyst entirely of its contents, leaving in a canula or bougie, to excite contraction of the cyst, and prevent the re-collection of fluid.

"2. Injections into the cyst.

"For the first method of practice it has been urged, that operations on the abdomen, although dangerous, are by no means fatal; and the cyst often containing matters of various tenacity, these contents will not escape through an ordinary canula.

"A very remarkable instance of the application of this practice, and a very strong proof of the impunity with which operations conducted with inconsiderable roughness may sometimes be successful; is contained in the 33d vol. of the *Philosophical Transactions*, by Dr. Houston, more than a century ago. This was the case in a woman, æt. 58, of an ovarian tumour of 13 years duration. I subjoin the account of the operation in his own words:—

"The operation of puncturing the abdomen being proposed, she consented. Accordingly, with an imposthume lancet, I laid open about an inch; but finding nothing issue, I enlarged it two inches, and even then came nothing forth but a little thin yellowish serum,

so I ventured to lay it open about two inches more. I was not a little startled, after so large an aperture, to find only a glutinous substance bung up the orifice. The difficulty was, however, to remove it. I tried my probe, and endeavoured with my fingers, but all in vain; it was so slippery that it eluded every touch, and the strongest hold I could take.

"I wanted in this place almost every thing necessary, but be-  
thought me of a very odd instrument, yet as good as the best in its  
consequence, because it answered the end proposed. I took a  
strong fir splinter, such as the poor in that country used to burn in-  
stead of candles; I wrapped about the end of the splinter some  
loose lint, and thrust it into the wound; and by turning and winding  
it, I drew out above two yards in length of a substance thicker  
than jelly, or rather like glue fresh made and hung out to dry; its  
breadth was about ten inches. This was followed by nine full  
quarts of such matter as is met with in steatomatous and atheroma-  
tous tumours, with several hydatids, of various sizes, containing a  
yellowish serum, the least of them larger than an orange, with seve-  
ral large pieces of membranes, which seemed to be parts of the dis-  
tended ovary. I then squeezed out all I could, and stitched up the  
wound in three places."

"This patient recovered, and lived fourteen years afterwards, with-  
out any return of the disease." 101.

The next operation of this kind is recorded in the memoirs  
of the Royal Academy of Surgery, Paris. The celebrated Le  
Dran was the operator. He made an incision into the tumour,  
and left the trocar in the wound, through which he injected  
mild fluids. The patient survived the operation four years,  
with a fistulous opening, which never entirely closed. In ano-  
ther similar operation the canula was left in; and, at the expira-  
tion of two years, the fistula closed, and the patient recovered.  
Mr. Key, of Guy's Hospital, has tried this plan in three instan-  
ces, without success. The following are his words, in a com-  
munication to Dr. Seymour.

"I find notes of three cases in which the instrument was left in,  
after tapping an encysted dropsy. The issue has not been such as  
to lead me to expect much from the plan. One case was favourable  
for the treatment, as the fluid was of the serous character. The  
two others contained a fluid of much thicker consistence; in one  
it resembled mucilage, in the other a dark coffee-ground fluid.—  
Case 1. A strong, and otherwise healthy woman, æt. 42, single.—  
Dropsy of four years standing. Twenty-seven pints drawn off, re-  
sembling straw-coloured serum; no inflammation followed. In  
two months fluid again collected; tapped; and twenty-one pints of

same character removed. A piece of elastic gum catheter left in but closed; for three days pain, but not considerable; slight febrile symptoms; on the third day plug withdrawn, and a few ounces of turbid serum removed. Experienced relief. The same operation repeated on the 9th, 13th, and 18th of May. At each successive operation the fluid assumed a more turbid and inspissated character, shewing the progress of inflammation. At the last she began to complain of so much general tenderness, and so much fever excited, that I was induced to comply with her request to withdraw it. The treatment certainly retarded the formation of fluid, for I had not occasion to tap her until six months afterwards, when the fluid was found to be of the serous kind, containing a few flakes of lymph. The medical treatment consisted in mild purgative remedies.

"The second case is that of a female, æt. 33, having had ovarian dropsy for two years and a half; the tumour solid in some parts, with a large cyst on right side; the health impaired of late as the tumour increased. The bougie was introduced after tapping; the fluid drawn off was of the mucilaginous kind, of a light brown colour. On the third day she complained of great pain across the scrobic. cordis, which was relieved by fomentations. On fifth day, pain returning, with sickness and a febrile pulse, I thought it advisable to take out the bougie. The fluid again collected after a short interval, and was removed; it retained the same character.—This patient died out of the hospital in a year after; and, on inspection, the ovarian tumour was divided into several cysts of various sizes, with tense fibrous septa.

"The other case was a delicate young married woman, without children, exceedingly florid complexion, and of but little constitutional power. The fluid was of a dark reddish coffee-ground colour, about seventeen pints in quantity. A piece of elastic catheter was left in after the operation; obliged to be withdrawn on the following day, in consequence of the severe constitutional irritation which followed. The fever and tenderness of the belly increased for four days, and an abscess formed between the peritoneum and integuments, which burst at the opening made by the trocar. Under the continued suppuration she sank; and not being allowed to inspect her, we could not ascertain if the abscess communicated with the cyst; of this, however, we had strong suspicion." 105.

In the true scirrhus of the ovarium our author is unable to point out any remedy that can be relied on. Mercury, iodine, the caustic alkali, conium, and muriate of lime, have all been employed for the removal of morbid growths—but not with very great success. Dr. Seymour descants on the power of

mercury in dissolving adhesions resulting from inflammatory action, and then adverts to dropsy, as so often dependent on disorganization of the heart, liver, lungs, or kidneys.

"If this disorganization has long existed, if the inflammatory action which produced it, has entirely ceased, then perhaps will the employment of mercury be found worse than useless, diuretics and purgatives, according to the circumstances of the case, affording the best chance of relief; but if the case be recent, and inflammation, in a more or less acute form, is going on, many a patient has his life prolonged by the administration of mercury, combined with venesection and the use of salts of potass." 108.

On these principles the beneficial employment of mercury is limited to those cases in which vascular excitement has immediately preceded the enlargement, and still continues, in which case its growth may be entirely stopped, and the already formed increase of bulk diminished.

"It must be remembered also, that ovarian tumours sometimes increase rapidly, and by pressing on neighbouring parts produce inflammation of surrounding textures; where such inflammation ensues, the employment of mercury will be found useful, for at this time the blood drawn will be found covered with buffy coat. The membrane which lines these cysts we have seen is nearly allied in structure to the natural serous membranes of the body; it likewise is often attacked by inflammation after tapping, or from external injury.—Here again mercury is useful, and will restrain even more powerfully than venesection the progress of the mischief." 109.

Excepting under the foregoing circumstances, Dr. S. thinks that mercury can be of little or no use—perhaps of disuse.—Dr. S. then takes up the consideration of iodine. After advertizing to the injurious effects of this medicine, when incautiously administered, he relates the following case communicated to him by Dr. Brodie.

"I have employed iodine as an internal medicine in a great number of cases of morbid growth, without any manifest effect arising from its exhibition. In two cases, however, and in two only, it was productive of the greatest benefit, effecting that which I could scarcely have supposed that any medicine was able to accomplish.

"In one of these cases, which I attended with Mr. Pennington, the patient laboured under a tumour on one side of the tongue, and imbedded in its substance, of about the size of a nutmeg, of an ir-

regular form, hard to the touch, and having a well-defined margin. The disease had existed between one and two years, gradually making progress; and it had resisted the internal use of arsenic, as well as a course of sarsaparilla, combined with oxymuriate of mercury. As the surface of the tongue was furred, and there were some other symptoms which seemed to indicate a deranged state of the digestive organs, we prescribed, in the first place, the pilula hydrargyri, with a gentle aperient, and a light bitter with soda. Under this treatment the tongue became clean, but there was no perceptible alteration in the local disease. We then administered the tincture of iodine three times daily, in moderate doses, gradually increased. In a fortnight the tumour was evidently smaller, and at the expiration of about eight weeks it had nearly disappeared. The patient was sent into the country, being directed to continue the use of the iodine for some time longer. This was upwards of four years ago, and I have not seen the patient since; but I have been informed that the cure is complete.

"The second case was that of a man who was admitted into St. George's Hospital on account of a tumour, situated on one side a little below the axilla. It was of the size of a small orange, unattended by pain, and bearing no other marks of inflammation, and quite moveable beneath the skin. Having removed it by the knife, I found, on making a section of the tumour, that it was composed of a brown solid substance, of a firmer consistence, and to all appearance more highly organized than fungus hæmatodes, and of an uniform structure throughout, except that externally it was covered by a thin membranous cyst closely adhering to it. Sometime afterwards the same man applied at the hospital a second time, having two tumours on the neck, each of the size of a double walnut.—These bore no resemblance to the common enlarged glands which occur in this situation, and so exactly resembled that which had been removed from the side, that no one entertained a doubt as to their being exactly of the same nature.

"Conceiving that there were some obvious objections to a second operation for the removal of a disease, so manifestly depending on a constitutional cause, and knowing nothing better to be done, I prescribed the tincture of iodine to be taken internally.—Under this course of treatment, which was continued for several weeks, the tumours gradually diminished in size, and ultimately disappeared. I have heard nothing of the patient since; but as I told him that he should be received into the hospital again whenever he applied for that purpose, I think that in all probability he has had no return of his complaint.

"I have no right to say, that in these cases the tumours were of a malignant nature; at any rate, they were not malignant tumours of the worst kind. I have, however, exhibited the tincture of iodine

in many cases of truly malignant disease, and in a few instances, as it appeared, not without some temporary advantage. For example, I was consulted concerning a lady who was supposed to labour under a tumour of the breast. I found, however, on examination, that the breast itself was in a healthy state; and that in this, as in some other cases which have fallen under my observation, the apparent enlargement of the breast was the consequence of its being elevated by a tumour beneath it. The tincture of iodine was given internally, and under its use the tumour became so much reduced in size, that I had the credit with the patient and her friends of having cured an obstinate disease. The amendment, however, was of short duration. Soon after discontinuance of the medicine, the tumour began again to increase in size; and the iodine, which was a second time administered, had now no dominion over it.—The patient ultimately died; and on inspecting the body, it was ascertained that there was a medullary or fungus tumour, which had its origin in one of the ribs below the breast and pectoral muscles. The same disease existed also in other parts of the body.” 115.

A remarkable case is next detailed by Dr. Seymour himself. A female, aged 31, was admitted into the Asylum of Health, under Dr. Badeley, in March, 1827. A large tumour could be traced into the pelvis, and occupying the whole right side of the abdomen. It was hard to the touch, irregular, and conveyed an obscure sense of fluctuation. It had existed 18 months. The health was tolerably good. The tincture of iodine was exhibited for two months gradually increasing the dose to 20 drops twice a day, with external frictions of the same. The tumour appeared to grow gradually smaller, and, at length very violent constitutional symptoms came on, viz: tremblings, great distress of mind, and lowness of spirits, to which succeeded signs of internal suppuration—a very quick pulse, brown tongue, rigors, profuse sweats. At the expiration of a fortnight the patient began to pass purulent matter by the rectum and vagina, extremely fetid. This discharge continued for several weeks. She was now allowed generous diet and tonics. She was sent into the country, and returned in five weeks, her strength restored, and the tumour nearly gone. Six months after this she was examined by a celebrated physician—accoucheur, who could discover no tumour. We believe, however, that this patient is now in St. George’s Hospital in a very deplorable state.

Before quitting the subject of iodine, we ought to advert to the treatment employed and recommended by Dr. A. T. Thompson. This is, the evacuation of the fluid from the cells

by tapping, and then the steady administration of iodine. We believe it will be found that this potent medicine has a strong diuretic effect—at least we have seen this effect produced by it in a very marked manner, in ascites with enlarged liver.

“The third of the remedies which have enjoyed a high reputation as a deobstruent, is liquor-potassæ. This medicine, employed in as large doses as the stomach will bear, appears to have been successful in discussing indolent scrofulous tumours, and those of a steatomatous kind. It is with diffidence that I offer any result of my own experience; but in diseases of a malignant nature, affecting internal parts; it has appeared to me to produce more alleviation than any other remedy with which I am acquainted. This applies, however, principally to those tumours when they are not attended with acute pain, or any considerable symptomatic fever.

“Liquor-potassæ has been recommended in ovarian disease of the kind we are considering, and the general health appears often to have been greatly improved during its use; and the formidable disease itself is reported to have disappeared under its employment.

“The liquor-potassæ, in such cases, appears to act by inducing suppuration in the cysts, which is afterwards discharged after adhesions formed with neighbouring viscera. In this respect its action resembles that of iodine, and is contra-indicated when increased vascular action is present; hence it would appear to be most useful in those cases to which mercury is inapplicable; and, in fact, it is in the leucophlegmatic habit of body that it appears to be most beneficial, whether as a curative or only as a palliative agent.

“Dr. Warren has favoured me with the account of a case which occurred under his care several years ago, in which this remedy was employed in very large doses, as large as the stomach could bear it, at short intervals. After some weeks, softening of the tumour took place, adhesion with the great intestine, an opening was formed, and much purulent matter, united with other secretions of various consistence, such as are observed in these tumours, passed by stool.—The swelling subsided, and the patient entirely recovered her health.” 119.

Mr. Abernethy has strongly recommended a series of blisters, after the fluid has been drawn off, as a preventive of its re-accumulation. The muriate of lime has been much lauded by Dr. James Hamilton, of Edinburgh, in conjunction with “percussion of the tumour.”

“Adverting (says he) to the effects of percussion and of pressure in chronic rheumatism, and knowing the influence of the continued use of the muriate of lime in indolent glandular swellings, the author was led to the trial of those several means, as being at

any rate perfectly safe. He advised, therefore, that moderate and equable pressure of the abdomen should be made, by means of a suitable bandage; that the enlarged part should be subjected twice a day to gentle percussion; and that a course of small doses of the muriate of lime should be continued for at least several months.—Where pain or tenderness was experienced on the ovary being pressed upon, he recommended, in addition to the above means, the daily use of the warm bath.

“This plan of treatment has been much more successful than he had anticipated. In seven cases in which it was tried, the enlargement has so completely subsided that it is no longer tangible. There could be no mistake in the majority of these cases, not only because the size of the diseased ovary was very considerable, the fluctuation was distinct, and all the ordinary characteristics well marked, but also because the nature of the affection had been previously ascertained by the most experienced practitioners in London.

“In the first three cases the author considered that there might be some accidental coincidence independent of the remedies employed, and therefore he did not venture to allude to them even in lecturing, being always unwilling to give any hints which might lead to delusive speculations in the practice of physic; but the fortunate issue of four additional cases entitles him to presume that the above means of cure bid fair to prove extensively useful.” 123.

The last measure—the *ANCEPS REMEDIUM*—its extirpation of the whole tumour. We have laid before our readers, on former occasions, all that is known of this formidable operation. We need not here reiterate them. The operation certainly has been successful, both in this country and on the Continent; but we are inclined to agree with the sensible author of the work under review, that—“the arguments against such an operation are numerous and strong, while the probabilities of success are very small.”

We think that both the author and the reader will acknowledge that we have done ample justice to the work, by a faithful and extended analysis of its contents—an analysis that will travel through every region of the globe, and consequently experience a diffusion which the original can never hope to attain.

## Abstract of Foreign Medicine.

### PRACTICE OF MEDICINE.

*Mr. Jewel on Nitrate of Silver in Leucorrhœa.* In the Medical and Physical Journal for last October, Mr. Jewel drew the attention of his brethren to the subject of vaginal discharges, and more especially to a remedy not hitherto prescribed in such cases—injections of nitrate of silver. It is Mr. Jewel's opinion that a very common cause of leucorrhœa is a subacute or chronic inflammation of the cervix uteri—and that this phlogosis is not seldom mistaken for more serious affections, as carcinoma uteri. He thinks that the irritable uterus, so ably described by Dr. Gooch, will be remedied by the same plan of treatment which he prescribes for leucorrhœa. The following remarks, he hopes, will assist the young practitioner in his diagnosis of leucorrhœal from more serious diseases of the uterine system.

"This inflammation of the cervix uteri, like scirrhus, or other organic disease of the uterine system, attacks occasionally at the period of life when the catamenia are about to cease; but I have more frequently found it to exist in married women, from the age of twenty-six or twenty-seven to that of forty, and very recently I have seen several severe cases occurring in young married females, within three months after the birth of the first child. The local symptoms in both diseases are very nearly allied, namely, occasional lancinating pain, more or less acute, through the region of the uterus; with a constant dull kind of pain about the inferior portion of the sacrum, the hip, or groin; attended also by an irritable bladder, or frequent desire to void the urine, and in some severer cases by tenesmus. The vaginal discharge is of a milky or cream-like colour, and is commonly, but particularly in the more acute cases, mixed with a dark-coloured or grumous secretion. Upon making an examination per vaginam in this disease, the os uteri will not be found opened to the same extent as in carcinoma, nor will its margin present the same cartilaginous hardness to the touch. The pain does not appear to be situated in the edges of the os uteri, as described by Mr. Burns, but in the cervix, as pressure upon this part alone occasions the patient to complain. The uterus will be found projecting lower in the vagina than natural; but this will depend on the nature of the complaint: the more acute, the farther it will have descended."

Passing over the routine remedies in such cases, Mr. Jewel adverts to the use of nitrate of silver applied directly to the part affected. The mode of application which he has employed is, either to conceal the caustic in a silver tube, precisely on the principle of its application in strictures, or to use a solution of the nitrate, in the proportion of three grains to the ounce of water, gradually increasing the strength. A bit of sponge, firmly and neatly tied to a piece of whalebone, is to be moistened with the solution, and carefully introduced into the vagina up to the os uteri. This mode, he conceives, is preferable to injection, and can be effected by the patient herself. The application should be frequently made. Cases are detailed in illustration, and he concludes his paper by guarding the profession against the idea that he holds up the remedy in the light of a specific. He merely recommends it to their attention as a powerful auxiliary to such other means as the nature of the symptoms may indicate.

In the Westminster Medical Society, held January 23d, of the present year, our author again drew the attention of his professional brethren to this subject, and the proceedings of the Society are well reported in the Medical Gazette, of January 30th. In this sitting Mr. Jewel reiterated his opinion respecting the pathology of leucorrhœa, and maintained that it was of an inflammatory, or, at all events, a congestive character. But he queries whether such a condition may not lead to scirrhus or carcinoma uteri. After alluding to constitutional treatment, and especially to iodine, which exerts a powerful influence on the uterine system, Mr. J. reiterated his former experience of the nitrate of silver, and adduced the result of additional observation. This subsequent experience appears to have been confirmative of that which preceded.

From what we have seen of the utility of nitrate of silver in mucous and muco-purulent discharges from other parts of the body—as the urethra of the male, the eye, &c., we have no doubt it will prove very useful in leucorrhœa, to which disease, we believe, it has not been applied before Mr. Jewel's remarks appeared. [Johnson's Journal.]

*A Treatise on Syphilis, &c. by John Bacot, Surgeon to the St. George's and St. James's Dispensary, &c., 8vo. pp. 280. London, 1829.* It is not from a mean opinion of this volume that we have not hitherto reviewed it fully, or that we now merely content ourselves with a brief notice of it in our Periscope. The fact is, that having been previously published in the form of lectures in our valued contemporary, the Medical Gazette, it does not admit of any formal consideration in this Journal. We are loth, however, to pass over so deserving a work in silence, for we believe that if the precepts contained in it were engrafted in the minds of the younger members of the profession, and if they would but follow the practice recommended, the public eye might be spared the horror of many of those shocking objects, the victims of syphilis and mercury, that at present meet it in our marts and thoroughfares. There is not a disease in the black catalogue of human ills in which judicious practice may accomplish more good, or injudicious practice effect more evil, than in the dreaded and frequently dreadful lues. Not one in a hundred of those unfortunate beings that throng our alms' houses, and are sometimes seen in the mansions of the wealthy; wretches, like Shakspeare's octogenarian, sans eyes, sans ears, sans teeth, sans every thing; not one in a hundred, we say, of those miserable creatures would be reduced to so loathsome a pass, did their medical attendant's information direct, or their own prudence allow, the proper measures to be steadily pursued. But this is a subject on which declamation would be idle, and we therefore hasten to give a specimen of the work before us. The subject we shall choose is gonorrhœal rheumatism, on which our author's remarks, though brief, are pithy and to the purpose.

"The next affection which I shall mention as a consequence of gonorrhœa is rheumatism; that is pain and swelling of the knees and ancles especially. This is the most usual form which the complaint assumes, though in a few very rare instances the symptoms have been more general, the pain more acute, and the general disturbance of the system more severe. These diseases are scarcely mentioned by any writer upon venereal complaints, at which Swediaur expresses his astonishment; though, in fact, what he has said upon this subject is very unsatisfactory, and proves that it was but imperfectly known even to him; it has not, however, escaped the penetration of Mr. Brodie.—Here, again, we are told that a suppression of the gonorrhœal discharge is the cause of the attack; but in the cases which have fallen under my own observation, this must be understood in a very qualified sense. I think it may be fairly said, that neither the affection of the joints, nor the more general

rheumatism, come on until the gonorrhœa is upon the decline; and occasionally it has appeared to have succeeded to a sudden cessation of the discharge, following the use of cubeba or copaiba, in large doses; so that those medicines have not escaped the imputation of having been the remote causes of the attack. The subject is too little understood, and the examples of the disease too unfrequent, to permit me to indulge in theoretical views. All I can with confidence assert is, that an attack of pain, and enlargement of the joints of the knees and ancles, sometimes takes place suddenly towards the termination of a gonorrhœa. The subjects of these attacks are usually young men of strumous habits, of florid complexions, and not particularly robust. There is often much puffiness and tenderness of the ancles, especially towards evening; the skin is not externally red; and the pain is not very much augmented by gentle pressure; the pulse is usually more frequent than in a state of health; the stomach sympathizes also in the attack; the appetite declines, or fails altogether; and now and then it happens that all these symptoms are suddenly relieved by an eruption of papulæ, in clusters; or sometimes by pustules, in very minute patches. When these appear, not only are the pains relieved, but the constitutional symptoms also yield; and the eruption, after some days, sometimes, indeed, not for some weeks, grows paler, and a desquamation succeeds, leaving a slightly discoloured state of the skin, which, however, gradually wears itself out. This is the progress of the symptoms when left to themselves; but medicine can do much to relieve them, and to facilitate and hasten their course. In the first attack of pain and swelling of the joints, rest, and confinement to bed, together with the employment of local or general blood-letting, will be necessary; though the use of the lancet is, I think, upon the whole, much to be preferred to the application of leeches; but the bleeding should not be carried to any extent. This should be accompanied with the exhibition of saline antimonial medicines, combined with the compound powder of ipecacuanha, in doses of five or six grains, with an interval of four or five hours between each; or, what sometimes answers still better, the vinum colchici, in such doses as will produce some effect upon the stomach and bowels. For this purpose, one drachm of the wine may be given as a single dose, mixed with magnesia and camphorated mixture, and a very sudden remission of the pain is frequently the consequence; or, if preferred, the same remedy may be given in more divided doses, from twenty to twenty-five minims every five or six hours. When, by either or all these means, the pains are relieved, and the pulse returns to its healthy standard, frictions to the limbs, either of camphorated spirits, or with the flesh-brush, and the internal use of the compound decoction of sarsaparilla, will tend to restore the tone and vigor of the system. If the joints continue swollen and stiff, the warm salt water-bath may be used three times in the week, and a moderate share of exercise permitted, provided the weather admits of it.

"In those cases where the affection of the joints is succeeded by eruptions of the papular or pustular forms, (sometimes, indeed, they are mingled together in the same individual,) in addition to the sarsaparilla, small alterative doses of mercury may be conjoined. Of these the best form is, I believe, the compound calomel pill of the present pharmacopœia. Under its judicious and careful use the eruptions will fade away much more quickly, and the strength and health will be more speedily restored than by the mere vegetable remedy alone. It is not necessary, even in these cases, to carry the exhibition of mercury to the extent of salivation, though a slight tenderness of the gums is not by any means objectionable. One caution, however, is, I think, absolutely necessary; that is, never to persevere in the use of the mercury if it deranges the bowels, or appears to excite any disturbance in the system, denoted by acceleration of the pulse, restlessness, or disturbed

sleep at night. Such is the plan of treatment which I should adopt in these affections; but when we have to encounter the more rare, but at the same time more formidable cases of general rheumatism, the mode of treatment must be assimilated to that which we should practise in cases unconnected with any gonorrhœal origin; that is, bleeding may occasionally be necessary. Antimonials or colchicum, with opium and the warm-bath, will be indicated according to the extent and severity of the symptoms; though in the convalescent state the sea-air and bathing are equally appropriate, and more necessary even than in the former instances.

"Among the medicines most efficacious in removing the chronic stage of this disease, bark and guaiacum hold the first rank. The ammoniated tincture of guaiacum is, indeed, in these instances, a most invaluable remedy, given in doses of from forty to sixty drops, in combination with the decoction of bark, two or three times in the day."

Mr. Bacot has once or twice found these rheumatic complaints dependent on an irritable state of urethra, the consequence of long-continued or repeated discharge. Here a painful condition of the feet is often one of the most distressing symptoms. In such cases the cure cannot be expected until, by the employment of bougies, the urethra is restored to its natural state. Mr. Bacot pays a well-merited compliment to Mr. Brodie, for the accuracy of that distinguished surgeon's observations on this disease in his *Treatise on Diseases of the Joints*. Mr. Brodie, it is well known, thinks very highly of the powers of colchicum. Mr. Bacot agrees with Mr. Brodie in believing that the pains are aggravated by blistering the swollen joints, and he does not therefore recommend the measure.

In two cases Mr. Bacot has witnessed ulcerations of the soft palate, leading to disease of the ossa palati, consecutive on a virulent gonorrhœa, the discharge of which had apparently been cured about two months previously. The first stage of this secondary affection was an inflammatory flush of the whole palatine arch; a small pimple then formed and burst just where the velum pendulum palati begins; this spread rapidly until the ulceration assumed the size of a silver three-pence; and continued there with a sloughy-bottom, and without much pain, but indisposed to heal by all the simple means employed for that purpose. The patient was of a very irritable strumous habit, and the first appearance of the disease was accompanied with much fever, which gave way to active purging and antimonials. Sarsaparilla was afterwards freely employed, but it was only when mercury was conjoined that a cure was effected. In one case the course appeared not to have been carried to a sufficient extent: the ulceration broke out afresh: disease of the superior maxillary bone ensued: exfoliation took place: and the patient finally recovered after a long course of mercury.

"These cases are, I conceive, highly interesting, because they are certainly proofs of affections of the throat and spongy bones, directly arising from gonorrhœa, and gonorrhœa only. They are rare, perhaps very rare occurrences, not sufficiently common to cause a revolution in our practice, but sufficiently important to call our attention to any similar affection which we must not reject as syphilitic, and withhold the exhibition of mercury merely because we can only trace gonorrhœa as a primary symptom. We must recollect how much is depending upon our coming to a right decision upon a question of such importance to the comfort and welfare of our patient, and not obstinately refuse a remedy which, judiciously managed, will undoubtedly lead to a successful issue, because the phenomena are not exactly in accordance with our preconceived notions. This is a subject to which my attention has lately been particularly called, and it stands in need of farther elucidation."

As far as the history afforded by a patient goes, we may say that we have on several occasions seen severe ulcerations of the throat succeeding gonorrhoea only. But the mischief of it is, that if the accounts of their complaints delivered by patients are frequently fallacious on other occasions, they are positively deceptive to a degree in venereal maladies. They cannot, or they will not, tell the truth, and the surgeon is but too often obliged to judge for himself, and decide upon a plan in direct opposition to what the "history" would point out. In the cases to which we alluded, sarsaparilla was effectual, as it commonly is in these secondary sore throats, the compounds of the venereal and mercurial virus.

Here we must conclude, and we cordially recommend Mr. Bacot's book to those who wish to have a comprehensive view of what is generally known and practised by the best surgeons in respect to syphilis. [*Johnson's Jour.*]

*Dupuytren's Treatment of Scrofula.* The following note respecting the above celebrated surgeon's method of treatment in scrophulous affections, was communicated by Professor Guilbert to M. Ratier, for the third edition of his work on the Parisian Hospitals, recently translated by Dr. McLellan:

"The treatment employed by M. Dupuytren in scrofula, differs much from the methods of treatment generally followed, and is the result of observations, anatomical and physiological, on the nature and progress of that disease.

"Whatever be its varieties or its seat, scrofula exhibits three distinct periods in its march. In the first, the disease is in some measure inert, manifesting itself only through the characters proper to the lymphatic constitution, and by an interruption, more or less difficult to perceive, in the action of the parts affected. In this first period, M. Dupuytren employs all the means afforded by the hygiene suited to fortify the constitution, and, by consequence effect the resolution of the disease. He is careful, moreover, to avoid every thing that might irritate, agitate, or heat, as elixirs, antiscorbutic syrups, and other spirituous medicines, which he believes are calculated to make the disease pass from the inert into the inflammatory state.

"It is especially in the second state of the disease, marked always by excitement, fever, local pains, swelling, and sanguineous exhalations, that he sedulously shuns those stimulating remedies which, from the abuse made of them for many years, have produced more evil than the disease itself they were professed to ameliorate.

"In this second period of the malady, M. Dupuytren, without regard to its supposed nature, treats it as an inflammatory affection, by bleeding, leeches, and diet, and by so doing has often arrested its progress, and prevented its melancholy consequences, such as caries of the bones, gibbosities, spontaneous luxations, suppuration, and destruction of the organs. If suppuration be established, and its products escape easily by an external outlet, and if the disease have returned to that almost inert state which constitutes its first period, he resumes the use of the means calculated to strengthen the system, but is still careful to reject every thing that would excite or have a tendency to cause insomnia or fever. For the same reason, he abstains, in the third period of the disease, from the use of vinous, alcoholic, or alkaline preparations. As a substitute for such, he prescribes only the purely aqueous preparations of cinchona, gentian, or simarouba; persuaded that they contain all that is really tonic in these substances, and are free from the irritating properties, contained both in the base and vehicle of the ordinary remedies. He thus employs the aqueous infusions, and syrups of gentian, cinchona, and simarouba, to which he gives more or less strength, according to the age and sex of the individual, or the seat and character of the affection.

[*Johnson's Journal.*]

THE  
**Baltimore Monthly Journal**  
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**Original Essays.**

ART. I.—*Case of Intestinal Calculi. By G. W. Boerstler, M. D.  
of Funkstown, Maryland.*

In 1819 I was requested to visit Mrs. C. (æ. 60.) of nervous temperament, spare habit, and considerable emaciation at that time. She had been much indisposed for more than two years with frequent attacks of cholic; always complaining of excruciating pain about the sigmoid flexure of the colon. These attacks would continue from 12 to 36 hours, and then relief could only be procured by repeated doses of tinct. opii, of which she kept a supply, and would take an ordinary sized tea spoon every two or three hours till relieved. She had in several attacks called in a medical practitioner, who bled her copiously, and gave her frequent doses of cathartic medicine, but without relief; indeed she stated that cathartics always increased the pain, and in no instance produced free alvine evacuations. A friend advised her to procure some of Lee's antibilious pills and try them.—She purchased three boxes and took them all in the course of two weeks, without any effect. While taking them, the evacuations were not more frequent or copious than usual, but consisted of thin, frothy mucous—of which she usually passed a small

quantity once in 48 hours. She now considered her case hopeless, and abandoned all medicines except the anodyne. In September, 1819, she experienced an attack of cholic of greater violence than usual, and after three days ineffectual use of the tinct. opii, she consented that I should be sent for. I found her suffering under the most agonizing pain just about the flexure of the colon. She had some fever—the abdomen very little distended, and her stomach not much disordered. After some conversation with her, she gave me the above history of her case and the assurance, and this confirmed by her husband, that the last medicine (excepting the tinct. opii) she had taken, was three boxes of Lee's pills, fifteen or sixteen months previous. I advised a copious venesection, the exhibition of powerful cathartics and the adjuvants of enemata and the warm bath. I left her four scruple-doses of calomel to be taken every two hours, alternated with a decoction of senna and salts. Next morning the medicine had not operated, and I prescribed boluses of cal. grs. X and scammony, grs. 2.\* Of these she took 22 before they operated. At the first evacuation she discharged a *concrete ball* of the size of an ordinary walnut, and a *great number of Lee's pills without any evident change in them*. The two succeeding operations brought away two more *concretions*, the largest measuring  $2\frac{3}{4}$  inches in diameter. From this time she began to recover and was restored to good health. The calculi were of a spheroidal figure,—externally of an unctuous feel, and of the consistence of the common soap stone. When broken, they presented a regular concentric chrystallization of a white and shining appearance—the chrystals were lamellated, and when broken presented a fracture not unlike very pure murias ammoniæ. This chrystallized mass was surrounded by a rind of a brown cast; this again by one of a darker brown, and this by an unctuous soapy envelope. Each rind was about the fourth of an inch in thickness, and the soapy deposit about the same. The concentric chrystals radiated re-

\* One every two hours.

gularly from a nucleus about the size of number three shot—the colour of carb. of iron, and of like hardness, only unctuous to the feel. The three calculi presented the same uniformity of structure. I subjected them to nitric and sulphuric acid, without any sensible change, either in the chrystals or more external parts. I notwithstanding believe the internal part to be a vegetable matter chrystalized, and resembling in structure and metallic lustre the true bezoars of eastern Persia. If upon analysis they should prove to be true bezoars, it will add an additional fact to that of Dr. Champion, that these concretions are formed as well in the human intestines, as in those of ruminating animals.

That these were formed in the intestinal canal, I infer from the fact of the patient never having complained in any part of the whole tract, but about the sigmoid flexure of the colon; and it is well known that the firmer scybalæ and concretions of a harder kind are usually formed in this intestine. I have preserved one of the calculi which I will do myself the pleasure of sending to any gentleman of your city, who will take the trouble to submit it to analysis.

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ART. II.—*Case of Placental Adhesion to the inner surface of the Os Uteri.* By Charles Hall, M. D. of St. Albans, Vt.

ON the 9th of March 1821, I was called to visit Mrs. K—— in labour with her first child. A respectable physician had been in attendance for the last 62 hours; and the patient had suffered as reported, almost incessant pain and distress. On calling at the house of the patient, I found her friends in the greatest alarm for her safety, and on entering the room I perceived her in the most excruciating agony, calling, in the most frantic manner for opiates to relieve her. Her pain was now increasing with but slight remission. In this condition the unhappy patient had remained, as I was informed by the attendants, without sleep or

much alleviation of pain, for the last 48 hours. Her kind physician informed me that the presentation of the child was regular, though her pains, he apprehended, were of the spurious kind; for the *os uteri* remained yet closed. I was now permitted to examine the state of the case, and indeed, the presentation appeared much as represented. The *os uteri* was yet apparently unyielding, though in the times of her severest throes it was propelled near the *os externum*. The pain was now evidently increasing in force, and at the time of a powerful effort, I bore my fore finger against the depression at the *os uteri*, and felt an evident separation of parts within. This I assisted, by inserting my finger and moving it in all directions, with which I was enabled to separate the firm adhesion within. The adhesion being thus removed at this point, the *os uteri* immediately dilated to the size of half a dollar, and directly the membranes protruded, and the waters broke. The separation was attended with considerable hæmorrhage, but this was soon moderated. The pains now became natural and returned at regular intervals, and the patient expressed herself with the greatest confidence. On further examination I perceived that the *occiput* of the child was turned towards the *sacrum* of the mother, the forehead resting against the *pubes*.—In this position the child's head remained for about two hours, nearly stationary. All this time the hæmorrhage continued, and at length became rather profuse.—Knowing as I did, that the hæmorrhage proceeded from the separated portion of the placenta, and perceiving the strength and spirits of the patient beginning to flag, I resorted, without farther delay, to the forceps.

With these, I succeeded in a few minutes, in safely delivering the unhappy sufferer of a living female child.

The thick portion of the placenta was attached to the posterior part of the *cervix uteri*, with its thinner portion reflected over the mouth of the womb, firmly adhering to it. The placenta was soon detached and dislodged without any untoward accident.

How long the os uteri would have remained closed in this case, unassisted by art, or whether the energies of the system would have been adequate to overcome this adhesion at all, I pretend not to surmise, not recollecting to have seen or read of a case precisely like this. I would hazard the opinion, however, that this timely assistance was the means of saving the life of the child, if not the mother, from impending death. Both mother and child are now living—the latter has enjoyed uninterrupted good health, but the mother, though apparently in ordinary health, has suffered, I am informed, several turns of illness which she imputes to this extraordinary birth. At any rate, she has had no uterine conception brought to maturity since.

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ART. II.—*Hints on the Treatment of Dysentery.*

(CONTINUED FROM PAGE 236, No. VI.)

DURING the exhibition of these more important medical agents, the ingesta, aliments and drinks, should be selected with the nicest care. Some substances, when they do not undergo digestion, very promptly undergo chemical changes, and together with the morbid secretions which result from diseased action, produce feculent matters of an exceedingly irritating character. When hard and insoluble, they also irritate mechanically the morbidly tender membrane. When, therefore, the disease is at the worst, we should suffer nothing but the most bland articles to enter the stomach. We must be careful at the same time that this organ be not suffered to remain altogether empty, since then the organ irritates itself, and its acrid secretions become more concentrated.

Farinaceous preparations, during the period of excitement, are undoubtedly the most proper aliments. Nothing can be preferable to arrow-root, thoroughly boiled and prepared of the consistence of gruel. Panada made of water-crackers without wine, rice water, and toast water, are also harmless. During the action of cathartic medicines, oat-meal gruel, carefully strained, may be freely given.

The patient often suffers much from thirst, and will generally so importune the attendants for water, that, although but little is taken into the stomach at once, a great deal is drank in a few hours, distending the stomach, impairing its tone, washing and irritating the intestines, and creating cholic pains. This is especially apt to occur when extremely cold water is suffered to be taken in considerable quantity. It is true that, for the moment, it is exceedingly grateful to the patient, and allays for a time the distressing thirst, but it generally suppresses perspiration, which it is our object to preserve with the utmost care, knowing that its suppression is attended with almost instant aggravation of the unpleasant symptoms. It is not proper, however, always to forbid the taking a few swallows of cold water. Sometimes it appears to allay the irritability of the stomach, and to reduce the excitement of the system. But we must use it empirically. If we find, on trial, that while it is grateful it is also innoxious or beneficial, we may allow it to be continued in small quantities. The effects, however, should be watched with the utmost care, and if the symptoms of thirst, sense of load at the præcordium, dryness of the skin, &c. are observed to be aggravated, withhold it immediately. Since the absurd practice of forbidding all cold drinks to the sick, in every form of fever, has been exploded, physicians have occasionally erred in the other extreme, and in no disease more frequently perhaps than dysentery.

The best drinks are those of a demulcent character—such as barley water, lint-seed tea, solution of gum acaciæ, infusion of slippery-elm, &c. &c. While we are desirous of promoting perspiration they should be made warm, and indeed, they are thus as pleasant to the patient as when of the temperature of the atmosphere. At other times we may suffer them to be given cold. We should strictly forbid the use of lemon-juice in this disease, and of tamarinds; they invariably produce more or less irritation. I have known lemonade, drunk in large quantities after a surgical operation, to produce all the symptoms of dysentery.

Cold water may undoubtedly be sometimes used with advantage in the form of injection. When tenesmus is very distressing, and there is evidence of high excitement in the large intestines, cold water, thrown in large quantities into the rectum, acts as an unirritating astringent, restoring the tone of the vessels, and repelling the fluids from that region. To be used with effect, it should be frequently repeated. Laudanum may, if necessary, be combined with it.

When the stage of morbid excitement is past, when the irritability of the bowels has been subdued, and the appetite has in some degree returned, it is still necessary to be exceedingly cautious in the choice of aliments and drinks, although we may relax a little the severity of our regimen. The patient may then be indulged in more solid farinaceous preparations, also in mutton soup prepared with rice, beef tea, and jellies. The latter, although often regarded as indigestible in certain states of the stomach, I have found to be often in the latter stage of this disease the most acceptable article to the stomach which could be selected; it is demulcent, as well as nutrient. If there remain any febrile excitement, it is necessary that it should be prepared without wine.

Another article which may be employed in all stages of the complaint, is boiled milk, combined with an equal proportion of lime water. They constitute a bland nutrient and astringent preparation, which may be advantageously employed, especially in the latter stage of almost every case.

The last object to be accomplished in the treatment of this disease, is to restore the tone and integrity of the diseased organs. For this purpose it will still be necessary to continue the exhibition of opium. If it be too suddenly withheld, after the bowels have been for a time accustomed to its soothing influence, the intestines will be found to relapse into convulsive action, and to irritate themselves. Recovery will generally be far more rapid under its continued influence.

The use of astringents, even in the latter stages of dysentery,

has of late been happily restricted to a few cases. Convalescence, when disease has been effectually subdued, is generally the work of nature, every caution being observed that her efforts be not foiled by injudicious interference. But sometimes the disease will have been so severe, and so long protracted that, when at length the morbid excitement has been overcome, there is not vis vitæ enough left to establish and maintain the recuperative process. The mucuous membrane remains relaxed and engorged, for want of contractile power in its vessels. Under these circumstances, undoubtedly astringents are of the utmost importance—at least until they shall have given an impulse to the powers of life, and commenced the restorative process. Opium accomplishes this in part, it is true, but under such circumstances there is wanting something more purely astringent and tonic.

When the system has been reduced to a feeble state, the pulse languid, though perhaps frequent, the surface bedewed by a clammy perspiration, the countenance expressive at once of exhaustion and distress—while at the same time the evacuations are frequent and exhausting, with copious discharges of blood and mucuous, I have seen the exhibition of bark in substance, combined with opium, apparently rescue the patient from the very hand of death.

A compound, which I have found exceedingly useful in this stage of the disease, is the following.—Opium, half a grain; Sulphate of Quinine, one grain; Kino, two grains, exhibited in the form of a pill, once in three or four hours, according to the urgency of the symptoms. Drs. Mosely and Jackson recommend, under similar circumstances, the employment of the acetate of lead. This article is said by some to be admissible even in the early and inflammatory periods of this disease. It is said not only to suppress copious discharges of blood and mucuous, but also to sooth and allay the irritation of the diseased organs. The high authority of Dr. Eberle is opposed to its indiscriminate use. He states that it has, in his hands, suppressed frequent evacuations,

but that it has, at the same time, created a sense of fullness and weight in the belly, and aggravated the tormina. I presume it to be in those cases in which it is given too early in the progress of the disease, that it produces these effects. I have seen it highly beneficial in doses of one or two grains in that state of the disease which I have described above.

There are many indigenous medical plants which have obtained reputation in the treatment of dysentery, being given in the latter stages of the disease. Those which are slightly aromatic and mucilaginous, are particularly recommended. The blackberry root is often employed. The *Geranium Maculatum*, (carne's-bill) one of the most pure astringents, and which grows abundantly in almost every part of our country, is highly esteemed. They may both be employed in the form of decoction. In the chronic dysentery of warm climates the simarouba bark has been used with advantage.

Astringents may also be employed in the form of injection. The acetate of lead is occasionally used in this manner, in combination with astringent decoctions, and with opium. The decoction of oak bark is one of the best vegetable astringents for this purpose—that of gall nuts is very similar. These should be combined with something of a demulcent character, as starch or slippery-elm, and with the tinct. of opium. Advantage is sometimes derived, at this period, from occasionally chafing the surface of the belly with brandy, in which cloves and other spices have been infused.

During recovery, the surface of the body should be carefully protected from all vicissitudes of temperature. For this purpose, flannel should always be worn.

## Analytical Reviews.

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### ART. I.

The following paper on a novel and interesting subject, contains so many judicious observations, that we give it entire.

EDITOR.

*Report of a Committee of the Connecticut Medical Society, respecting an Asylum for Inebriates, with the resolutions of the society, adopted at their annual meeting, May, 1830.*

The Committee appointed by the *Connecticut Medical Society*, to inquire whether it is expedient and practicable to establish an institution for the reformation of intemperate persons, having attended to the duty assigned them, submit the following report.

The propriety of making any provision for inebriates might well be questioned, if intemperance was not a misfortune as well as a crime—if the lover of strong drink, who scatters desolation over the fair prospects of his household, was not himself the victim of wretchedness from which he would gladly escape. The members of this society need not be told, that intemperance is commonly associated with disease of body or mind—and although the disease is aggravated, and probably occasioned by vicious habits, those very habits are adhered to, because they are thought to yield momentary relief from suffering. We believe there are few drunkards who would not, in their hours of sobriety, wish to be reclaimed—few, who would not wish to regain that rank in society, from which, by their vicious conduct, they have been so deeply degraded. But, however ardently they may desire their own reformation, they have not the moral courage and the needful resolution to effect it. Their disease excites no sympathy; their sufferings call forth no pity from others; their consciences and their friends reproach them; their

good resolutions fail them, and their promises of reformation are made only to be broken.

Under these circumstances, it becomes us to inquire whether the evil is not of so much importance as to demand the corrective aid of government, and the untiring efforts of benevolent individuals to effect its removal.

Civilians assure us that ignorance and vice are the only formidable enemies of our republic. Observation assures us, that intemperance is the great avenue to these sources of national calamity; that the child is rarely brought up in ignorance, unless one or the other of its parents is intemperate; and that few persons are convicted of grosser crimes till they have become intemperate themselves. It unfortunately happens, from the facility with which ardent spirits may be procured, and the latitude which every one assumes for the government of his own actions, that intemperance has become not only a source of national danger, but emphatically a national vice. It is moreover an evil whose contaminating influence extends from house to house, and from one individual to another, till it has corrupted the whole population of a neighborhood, and ruined those who should have been its ornaments. It often happens too, that inebriates are possessed of uncommon vivacity and fascinating address, which render them interesting—and in proportion as they are interesting, dangerous associates. One individual of this character has been often known to seduce an extensive circle of unsuspecting companions into habits of intemperance, from which it is difficult if not impossible, to reclaim them. We profess not to be able to estimate the extent of the evil which such an individual may entail upon his country—our object being to determine how such calamities may be avoided. By the existing laws of the state, if a person is guilty of intemperance, he may be sent to a work-house for punishment. There he is looked upon as a criminal—his associates are criminals, some of them guilty of heinous offences—and instead of being reclaimed, he is usually made worse. Being associated with companions who have lost all self-respect, and all regard for the opinions of others, he is by their companionship prepared for the commission of gross crimes, and consequently returns a more dangerous member of the community.

This is no picture of imaginary evil, but a statement which every day's observation proves to be literally true. Whenever an attempt has been made to effect a reformation of an intemperate person through the agency of legal penalties, he has become more degraded and more desperate. In consequence of

these difficulties few efforts are made to reform the drunkard; and of these, but a very small proportion are crowned with success. The institution of Temperance Societies, which have produced a most desirable change in the opinions and practice of others, has not served, and indeed was not designed, to brighten the faint prospect of his restoration. Neglected by those societies, and shunned by those who are most ardently engaged in promoting the cause of temperance, he chooses for his companions those who have already entered upon the same unfortunate career with himself, and pledges a faithful adherence to them and their practices. There never was a time when greater or more successful efforts were made to *prevent* the extension of this vice, and we are compelled to believe, there never was so faint a prospect of the drunkard's forsaking his companions or his cup, or when efforts directed to his preservation were more imperiously demanded. If any one is disposed to question the correctness of these observations, we would request him to examine the records of our criminal courts, and he will find that the expenditures for public prosecutions have been greatly augmented, and that convictions for crimes of almost every grade have become more numerous than at any former period.

The question then recurs, shall inebriates be permitted to pursue their unhappy career, without an effort to restrain and correct them? or shall they be subjected to such penal discipline as has been proved positively injurious to its subjects, and ultimately detrimental to society? Whenever these enquiries have been directed to intelligent, public spirited and benevolent men, an unqualified negative answer has been returned. The existing practice of our state is alike impolitic and cruel, and we proceed to point out a more judicious course, confidently believing it entitled to individual and legislative patronage.

Before attempting to eradicate any disease, we should endeavor to investigate its character, to inquire into its nature and tendency, and ascertain as far as practicable, the impediments which exist to its removal. This course we shall attempt to follow, on the present occasion. The use of intoxicating liquor is at first resorted to, for the temporary but pleasurable excitation which it produces. This excitement is soon followed by feelings of lassitude and dejection, which are sometimes sufficiently distressing to deter the subject of them from a second exposure to their influence. If not the excitement is again sought for—the consequent lassitude and dejection are again experienced, and the practice is reiterated, till at length ardent

spirits are considered the only refuge from the irksome feelings which they have created.

In this manner, the practice of intemperance is usually commenced, and it is continued but a short time, before the energies of the constitution are impaired, and the system becomes diseased. Under these circumstances, our efforts to reclaim the inebriate will be of doubtful utility; we may urge upon him the most powerful arguments in favor of abstinence, and the most earnest dissuasives from intemperance; but our arguments will be in vain. We may appeal to past experience, to present wretchedness, and to future degradation; but our appeal will not reach the conscience, or check the wayward career of him for whom it was intended. Nor does the influence of those excellent societies which have been established for the purpose of preserving what may well be termed the *ark of our country's safety*—the temperate habits of the rising generation, extend to the dwelling of him who is already intemperate. The reformation of such a person cannot be expected, unless he is restrained from the use of intoxicating liquors till his health is restored, his morals are improved, and his principles so established, as to induce him ever afterwards to reject their use.—From these considerations, it appears that no measures calculated to check the career of the intemperate, will be efficient, till we have an *Institution*, furnished with whatever is necessary for their maintainance and employment.

Where they shall be subjected to salutary discipline, and needful restraint.

Where they shall have no access to intoxicating liquors.

Where they shall be constantly and usefully employed.

Where they shall not be contaminated by evil associates, and where they shall have no opportunity of exerting an unfavorable influence upon others.

Where they shall receive whatever medical aid is necessary to restore their debilitated constitutions—to relieve the sufferings occasioned by past habits of intemperance, and to eradicate the strong but artificial propensity, which they may have acquired for indulgence in the use of inebriating drink.

Where they shall receive the benefit of moral precepts, correct examples, and such instruction as will induce them permanently to abandon their former vicious courses, and prepare them for the performance of those long neglected duties, which they owe to others and to themselves.

Where, in short, by an enlightened system of physical and moral treatment, they may be reformed; and whence, if reform-

ed, they may be restored, welcome guests of their families, and useful members of society.

In estimating the benefits which would result from such an establishment, we ought candidly to examine the evils which it is intended to correct, and to compare the expense which must be incurred, with the advantages which will result from its successful operation.

Intemperance is the great avenue to pauperism and crime.

The State of Connecticut annually pays twenty thousand dollars, and the several towns in the State unquestionably pay ten thousand dollars more, for the prosecution of offenders, whose crimes may be traced to intemperance.

The State also pays from five to ten thousand dollars a year for the support of paupers, and the several towns pay not less than thirty thousand dollars for a similar object. The amount paid for the maintenance of insane persons in this State, cannot be less than twenty thousand dollars annually, one third of which, according to official documents, which have been published in New-York and Philadelphia, is occasioned by indulgence in the use of intoxicating liquors. Our citizens are, therefore, annually required to pay 70,000 dollars for the relief of those misfortunes, and the suppression of those crimes, which are occasioned by intemperance. No one who has carefully watched the progress of the inebriate from respectability to dishonor, to pauperism and crime, can for a moment doubt, but it would be essentially diminished by the contemplated institution.

The amount annually paid for ardent spirits, the time devoted to revelry, and the languor and idleness which follow in the train of dissipation, constitute important items of expense, which we leave for others to calculate. By this convention no such estimate will be required: but if each member will form an opinion from his own personal observation, and state what might be annually saved, within the range of his professional practice, by removing drunkards from the haunts of dissipation to a quiet, well regulated establishment, where they should be made to earn their livelihood, he would furnish us with arguments which can neither be gainsaid nor refuted.

But the institution which we recommend will save what is more valuable than money; it will rescue many individuals from destruction—many families from destitution—and wipe a foul blot from the fair fame and good character of our State. Nay more, it will be an honor to that State, and with those other excellent charities which have been established for the restor-

ation of health and reason, for the instruction of mutes, and for the suppression of "wickedness and vice," it will continue to diffuse blessings over our land, long after its founders shall have slept in the dust.

This committee would gladly present to the medical society some calculations relative to the expense of the proposed establishment—but, it is thought better to refer the subject, without observation, to the decision of its patrons. We believe that land sufficient for cultivation, and buildings for the accommodation of at least one hundred persons, may be procured for twelve thousand dollars, and that those charitable citizens of our State who have always been active in the cause of benevolence, will pay one half of that sum. We may then look with confidence to the legislature, for whatever else is necessary to complete this noble work.

We need say nothing respecting the domestic arrangements of the institution, except, that it must be entirely devoted to the cause of industry and temperance. Much of its success will depend upon the character of the person to whose charge it is entrusted. In him must be found a combination of rare and excellent qualities, which will secure the affection as well as the respect, of those who are to be reformed by his exertions. He must, himself, be a pattern of industry and temperance, in order to induce others to practice temperance, and to pursue industriously whatever they may be required to perform. In him, dignity must be combined with cheerfulness—energy with mildness, and firmness with forbearance. His moral character, and moral precepts must be of that elevated standard, which will secure the confidence of the public, as well as the respect of those who are committed to his charge.

With such a superintendent, the institution would support itself. With such a guide, an unfortunate class of our fellow men, who at present earn nothing, enjoy nothing, and hope for nothing, would be led from their wayward career into the paths of rectitude and virtue.

To such a plan it would hardly be reasonable to expect opposition—and yet opposition should not excite the least surprise, since every scheme of benevolence, whether designed for the mitigation of suffering, or the extension of happiness, has, in the onset, been regarded as visionary, rejected as useless, or denounced as an unauthorized encroachment upon the established customs of the world. From physicians, however, who are in the habit of forming their opinions after mature deliberation, it will be sure to receive that degree of favor to which it is enti-

tioned. The only serious objection to the success of such a scheme, is that it will require a slight modification of existing laws. Instead of sending a drunkard to a work-house for punishment, we would have him sent to an assylum for reformation; and instead of thirty days confinement, we would require him to devote at least a year to the great and important work of reformation.

In the course of that time, he should be taught to live without ardent spirits; to live in habits of industry; to earn at least his own livelihood; and in the course of that time also, he should learn that he is under obligations of duty to himself—to his family—to his country, and to his God.

By the revised statutes of the State of New York, we are happy to learn that regulations similar to those which we would wish to see introduced into this State, have already been established. By those statutes it is ordained that if a person is convicted by a magistrate of intemperance, he is bound over to preserve order and abstain from criminal indulgences for one year; and in case of default of sureties, he shall be committed to jail. With the exception of the last clause, we would gladly see the same law enforced in this State; but we would have every person, when convicted of intemperance, unless he can find satisfactory sureties for his good conduct and sobriety, sent to an institution, furnished with whatever is necessary to promote his entire and permanent reformation. All which is respectfully submitted.

ELI TODD, MASON F. COGSWELL, SAMUEL B. WOODWARD, GEORGE SUMNER, HORATIO GRIDLEY,	}	Committee.
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The foregoing report having been read, was accepted by the convention, and the following resolutions were adopted.

1. *Resolved*, That in the opinion of this convention, it is expedient to establish in this State, an asylum for the reformation of inebriates.

2. *Resolved*, That Docts. Knight, Simons, and H. Woodward, be a committee to present this subject to the consideration of the Legislature, and obtain an act of Incorporation.

3. *Resolved*, That a central committee of three members, be appointed for the purpose of forming an association and procuring funds for the establishment of such an assylum—and that said committee be requested to report their proceedings to the next convention of this society.

4. *Resolved*, That there be a committee of two from each county, to co-operate with the central committee, in the prosecution of this object.

In accordance with the foregoing resolutions, Drs. *Eli Todd*, *S. B. Woodward* and *Geo. Sumner*, were appointed a central committee, and the following gentlemen were appointed a committee of correspondence.

HORATIO GRIDLEY,	}	Hartford.
WM. S. PIERSON,		
WM. TULLY,	}	New Haven.
ISAAC JENNINGS,		
N. S. PERKINS,	}	New London.
WM. ROBINSON,		
SAMUEL SIMONS,	}	Fairfield.
JOHN GOULDING,		
DARIOUS HUTCHINS,	}	Windham.
JOSIAH FULLER,		
LUTHER TICKNOR,	}	Litchfield.
NORMAN BULL,		
SAMUEL CARTER,	}	Middlesex.
THOMAS MINER,		
ELEAZER HUNT,	}	Tolland.
FREDERICK MORGAN,		

## ART. II.

### MEDICO-CHIRURGICAL TRANSACTIONS.

*Pathological Researches on Inflammation of the Veins of the Uterus, with additional Observations on Phlegmasia Dolens.*

By ROBERT LEE, M. D. Physician-Accoucher to the British Lying-in Hospital.

The article which we have selected for analysis, Dr. Lee's, is one of much interest in several points of view. Whether we look upon it with reference to venous inflammation generally, to inflammation of the uterine veins in particular, or to the pathology of phlegmasia dolens, it is calculated to give birth to some reflections in the minds of those who have paid any attention to these subjects. From circumstances, with which we need not trouble our readers, we have seen a good deal of phlebitis, and, consequently, we come to its consideration with

a mind more pre-occupied than was a certain President's of the Board of Trade, who announced as his political creed, that his brain was as "a sheet of blank paper." At the same time, we hope we have no material prejudices to clog our sensorial machinery, none, at least that will obstinately blind us to the perception of truth when she stands before us. So much for ourselves.

Dr Lee informs us that, in a former communication on Phlegmasia Dolens, he was led to infer, that inflammation of the iliac and femoral veins "gives rise to all the phenomena of that disease in puerperal women." It will be observed that there is a degree of ambiguity in this passage, for we are left in the dark as to whether such venous inflammation is a cause, amongst others of the phlegmasia dolens, or whether it is viewed by the Doctor as the whole and sole one. We believe that, taking in the uterine veins, the latter is his opinion; an opinion on which we have joined issue with him before, and will be compelled to join issue with him again. But we anticipate;—let us revert to Dr. Lee. "Subsequent dissections have enabled me," says he, "not only to confirm the accuracy of my former observations, but have led me to discover the important pathological fact, that, in phlegmasia dolens, the inflammation commences in the uterine branches of the hypogastric veins, and subsequently extends from them into the iliac and femoral trunks of the affected side." Here, again the passage is obscurely or ambiguously worded, for the reader cannot certainly tell, whether the author does or does not affirm inflammation of the uterine veins to exist in all cases of phlegmasia dolens. If the former, we leave him to explain the occurrence of the disease in the male, in whom uterine veins have not hitherto been discovered; if the latter, we must say that the text might have been more explicit. In order to establish the truth of views thus imperfectly explained, Dr. Lee subjoins a number of cases, of which we shall select and condense as many as our limits will enable us to comprise within this article.

CASE 1.—*Inflammation of the principal Abdominal Veins and those of the right Inferior Extremity.* Mrs. Edwards, æt. 35, was delivered of her second child after a natural labour, and a fortnight afterwards, viz. April 9th, 1829, was attacked with pain in the calf of the right leg, and loss of power of that lower extremity. On the 13th the limb was swollen without discoloration, and the inner surface of the thigh to the groin was very tender upon pressure. On the 16th the swelling was universal, the integuments pale and glistening, and not pitting upon pres-

usre, great tenderness along the course of the crural vessels, and the vein, from the groin to the middle of the thigh, indurated, enlarged, and exquisitely sensible. There was also great sensibility in the ham, and along the inner surface of the leg to the ankle, where some branches of the superficial veins were hard and painful upon pressure. There was little pyrexia, had been no rigor, and she said that the veins of this extremity had been the most distended during pregnancy. Twelve years previously, after the birth of her first child, she had experienced a similar attack in the same limb, which remained in a weak condition for several months.

The affection of the thigh diminished after the lapse of a week or ten days, but she became affected with rigors, quick pulse, &c. and complained of considerable uneasiness between the umbilicus and pubes and in the loins. The rigors came on every afternoon and were followed by heat and perspiration, the attacks of pain were acute, there was slight delirium at night, the fever was typhoid, there was soreness around the umbilicus, and pulsation in the epigastrium. These symptoms declined, but on the 20th of May she had another violent rigor, vomiting succeeded, and pain in the left side on deep inspiration; then appeared great prostration of strength, a peculiar sallowness of the skin, inflammation of the right eye, and delirium at night. The left eye also inflamed, the prostration increased, rigors took place from time to time, with hacking cough, diarrhoea, more or less insensibility, and the usual symptoms of typhus. On the 31st of May the eyes were so much swollen that they seemed pushed out of their sockets, and vision was entirely lost. On the 2d of June, a red puffy swelling appeared over the right elbow joint, and on the 15th she died.

*Sectio Cadavaris.* Present, Drs. Sims and Locock.

*“Thorax.*—In its left cavity were contained upwards of two pints of a thin purulent fluid, and extensive recent adhesions existed between the pleura covering the lower margin of the superior lobe and the pleura costalis. The surface of the inferior lobe was coated with a thick layer of flocculent coagulated lymph, as was a corresponding part of the pleura costalis. The substance of this lobe was of a dark colour, approaching to black, and soft in texture, so as to be readily broken down with the fingers. In its centre about an ounce of thick cream-coloured pus was found deposited in the dark coloured and softened lung. This was not contained in any cyst or membrane, but infiltrated into the pulmonary tissue.

*“In the right cavity of the chest recent adhesions also existed at the inferior part. A considerable portion of the right inferior lobe*

was entirely changed from the healthy structure, being converted into a dense, solid, dark red coloured mass. On the anterior surface of this lobe the pleura was elevated as if by a hard irregular tumour, but when cut into no pus escaped from this part, and it presented only the appearance of the surrounding portions of lung with a greater degree of condensation.

*"Vena cava inferior.* Coats of the vessel considerably thickened, and the internal, were visible, of a scarlet colour; its whole cavity occupied by a coagulum, distending it to its utmost extent, and terminating in a loose pointed extremity about an inch below the entrance of the vena cava hepatica. The coagulum, covered with a membranous-like investiture of a bright red colour, throughout firmly, and in many places inseparably adherent to the inner lining of the vein; the substance within it varied in consistence and colour; in some parts it presented the appearance of coagulable lymph, in others it was a pultaceous dull yellow mass, made up apparently of pus and lymph blended together. The exterior of the firmer portions were separated into layers, which gradually disappeared as they approached the centre. The mouths of all the veins emptying themselves into the cava were sealed up, the emulgents excepted, the coagulum, near the entrance of these vessels, hanging loosely within the cava.

*"Left common iliac and its branches.* Its interior plugged up with a continuation of the coagulum from the cava, and differing in no respect from it either as to consistence, colour or the firmness of its adhesions to the inner tunic of the vein; it was continued beyond the entrance of the internal iliac, (which it completely closed,) and terminated in a pointed extremity about the middle of the external iliac; neither the remainder of this vessel nor the femoral vein exhibited any morbid changes. The internal iliac was much contracted and lined with a thick adventitious membrane.

*"Right common iliac and its branches.* This vessel was contracted to more than one half its natural size; it was firm to the touch, and of a grayish blue colour, to its internal coat adhered an adventitious membrane of the same colour, containing within it a firm coagulum, made up of thin layers of dense lymph. The internal iliac was rendered quite impervious by dense dark-coloured bluish membranes, and at its entrance into the common iliac was converted into a solid cord.

*"The contracted external iliac* contained within it a soft yellowish coagulum, similar to the one in the cava; its coats were three or four times their natural thickness, and lined with dark-coloured membranous layers.

*"The femoral vein,* from Poupart's ligament to the middle of the thigh, was diminished in size, and almost inseparable from the artery. Its tunics were thickened, and its interior coated with a dense membrane surrounding a solid purple coagulum strongly ad-

herent to it. The superficial and deep femoral veins were in a similar condition, and the saphena major and minor differed from the femoral veins only in the size of the coagulum they contained, which was slender, and had formed no adhesion with the layers of lymph lining their cavity.

"The cellular membrane and other textures of the limb, were in a perfectly healthy condition, and in size and appearances there was externally no visible difference between the two extremities.

"The morbid alterations of structure now described, can still be distinctly seen in the preparation of the diseased veins, and have been represented with great accuracy in the beautiful drawing made by Mr. Perry, from the parts immediately after their removal from the body." 378:

In the second case the patient was confined in the latter part of March, whilst labouring under phthisical symptoms, and on the 4th of May experienced soreness in the left groin which gradually extended along the inner surface of the thigh to the ham, and thence along the back of the leg to the foot. In twenty-four hours the limb began to enlarge, and the swelling became hot, painful and colourless, pitting no where on pressure, except over the foot. Motion produced excruciating pain along the inner surface of the thigh, and the pain along the tract of the femoral vein was so acute that the condition of this vessel could not be ascertained. Several branches of the saphena above the knee were distended and hard, pulse 123; tongue red and glossy. On the 11th the femoral vein under Poupart's ligament could be felt enlarged and indurated; on the 17th there was less pain at the groin and in the course of the vessels, the pulmonary affection became aggravated, and in the morning of the 24th she died.

*Sectio Cadaveris.*—Vomicæ, &c. in the lungs. Left common, external, and internal iliac veins all impervious, with various alterations of structure. Common iliac at its termination reduced to a very slender tube, lined with a bluish slate coloured adventitious membrane. Remainder of the common and external iliac veins coated with a dark-coloured membrane, and their centre filled with a brownish ochrey-coloured tenacious substance, rather more consistent than the crassamentum of the blood.

Left internal iliac vein in some places reduced to a cord-like substance, and its cavity throughout completely obliterated; its uterine branches completely plugged up with firm reddish coagula of lymph. Branches and trunk of right hypogastric vein affected in the same way as the left. Coats of left femoral vein

thickened, and closely adherent to the artery and surrounding cellular substance; its whole interior lined with an adventitious membrane, and distended with a reddish coloured coagulum. Same morbid appearances in deep and superficial branches as far as examined down the thigh.

**CASE 3.—Phlegmasia Dolens—Iliac and Femoral veins inflamed.** Mrs. Mason, æt. 42, was delivered Aug. 1, 1829, of twins, and before the expulsion of the placenta had nearly perished of uterine hæmorrhage. Much tenderness of the uterus remained till the 27th, when she had a violent rigor, succeeded by fever, and pain in the right iliac region and groin. On the 28th the pain increased and extended towards the ham, and in the evening the limb swelled. On the 29th, the femoral vein for several inches under Poupart's ligament was felt enlarged and painful; tenderness in the right side of the hypogastrium; deep seated acute pain in the lower part of the spine on motion; depression. Sept. 8th. Less pain in limb—femoral vein still enlarged and painful—foot and leg pit—rigors and occasional attacks of diarrhœa. These symptoms continued with little variation except that she complained of tenderness in the left groin and thigh, and was at times delirious. Before her death, which happened on the 22d, both inferior extremities were œdematous.

**Sectio Cadaveris.**—The veins presented nearly similar appearances to those observed in the preceding cases. On the right side the iliacs were affected and imbedded in a mass of suppurating glands and pus which extended in the cellular membrane along the psoas muscle to Poupart's ligament. Lower two inches of the vena cava affected like the iliacs. On the left side the common, external iliac, and hypogastric veins contained soft adherent coagula, and the latter vessel was somewhat contracted and thickened in its coats.

The three succeeding cases were not fatal, and consequently no opportunity was afforded of establishing in a positive manner the existence of phlebitis. In all, however, there was pain and induration in the course of the femoral vessels, much swelling of the thigh or of the limb and tenderness to touch, slight pitting upon pressure, and more or less constitutional disturbance and depression. In the second, or fifth, case, the inguinal glands were enlarged and suppurated.

Some remarks are made on the preceeding cases by Dr. Lee with the view of shewing that phlebitis did actually exist, and that it originated and "generally commences" in the branches of the hypogastric, or uterine veins. The first of these conclusions will admit of no dispute, and need not be dwelt on further; the latter is rendered probable by the cases brought for-

ward by the Doctor, as well as by the mention of others which he cites from various authors. Mr. Wilson in the transactions of a Society for the Improvement of Medical and Chirurgical Knowledge, Vol. II. relates three cases of inflammation more or less extensive of the vena cava, iliacs, and uterine veins, in none of which was there *one of the symptoms of phlegmasia dolens*. M. M. Meckel, Bouillaud, Lawrence, Velpeau, and Guthrie, with Drs. Davis and Gooch, are quoted in support of the position in question, some of them satisfactorily, others not. This marshalling of cases and array of authorities, some of whom may be said to be rather *pressed* than fairly enlisted; is terminated by Dr. Lee asserting that "phlegmasia dolens must now be considered as merely one of the remote consequences of uterine phlebitis."

Dr. Lee proceeds to trace the mode in which uterine phlebitis is set up, its progress, symptoms, and sequelæ. Generally the "spermatic veins alone are affected, and for the most part only that on the side of the uterus, to which the placenta has been attached; and inflammation being once induced it is liable to spread continuously to the veins of the whole uterine system, of the ovaria, fallopian tubes, and broad ligaments. The vena cava itself may become affected, but this occurrence is not frequent, the disease being usually arrested at the entrance of the spermatic into the vena cava on the right side, and of the emulgent into the same vessel on the left. If, as sometimes happens, it pursue the direction of the kidneys, the substance of these organs, as well as their veins, may be involved in the mischief. The hypogastric veins are seldom affected on both sides, and rarely inflamed in comparison with the spermatic.

"Uterine phlebitis appears to result from the mechanical injury inflicted by protracted labour, from the force required for the extraction of the placenta in uterine hæmorrhage, from retained portions of placenta undergoing decomposition in the uterus, the application of cold and probably of contagion, and from various unknown causes operating on the uterine system after delivery.

"It is perhaps impossible to determine for the most part, the precise periods of its invasion, from the total absence of local pain, and of other symptoms; but it is probable that it most frequently begins soon after delivery, and remains stationary for a time around the orifices of the uterine veins, as phlebitis has been observed to do, where it occurs after venesection. Of this, however, we can have no certain proof, nor can it be admitted to be a general occurrence, from the rapidity with which the inflammation has been found to attack the uterine, spermatic, and renal veins. In one case the

disease proved fatal on the evening of the fifth day after labour, and on dissection, all these veins were found disorganized.

"It may be stated, as the general result of all the observations hitherto made on uterine phlebitis, that it occurs most frequently from the 10th to the 20th day after parturition, though it has been observed to commence at an earlier, as well as at a much later period.

"Where the veins alone are inflamed, the peritoneal and muscular tissues remaining unaffected, there is often either no pain or only a dull pain, with a sense of weight in the region of the uterus, and no other local symptom by which the disease can be recognized. The uterus too may return to its usual reduced volume or nearly so, and it is only on the accession of the constitutional symptoms, which have been already detailed, that the existence of this insidious and dangerous affection can be determined. If the substance of the uterus be affected, this organ remains above the brim of the pelvis, large, hard, and painful on pressure, as in puerperal peritonitis.

"With regard to the lochial discharge, it has sometimes been observed to be foetid, and puriform, and at other times in a perfectly natural state." 404.

The constitutional symptoms of uterine phlebitis are like those of phlebitis elsewhere, and need not be enumerated after what has been said in recent numbers of this Journal. Dr. Lee is induced to believe that the disease is of much more frequent occurrence than has hitherto been suspected, and "that to it must be referred many of the fatal disorders of puerperal women which have usually been comprehended under the vague designation of puerperal fever or peritonitis." According as the serous, muscular, or venous tissue of the uterus may be affected, will the forms of puerperal disease, in Dr. Lee's opinion, be inflammatory, congestive or typhoid.

A kind of halting place now occurs in the paper and we cannot have a better opportunity than this of making the few remarks which we intend to offer on the subject. Our readers are probably aware that we have on several occasions dissented from the pathology of phlegmasia dolens first promulgated by Dr. Davis, subsequently supported, and now extended by Dr. Lee. Our opposition neither originated in a spirit of opposition, nor was continued in one of obstinate pertinacity. We believed, in the first instance, that Dr. Davis had not proved his case, and though our opinion may be modified, it certainly is not subverted by what has since occurred. Not to go over the grounds of our opposition to the theory which places the exclusive origin of phlegmasia dolens in inflammation of the

veins, we may here allude to some circumstances deserving of consideration.

It cannot fail to be remarked that a considerable discrepancy exists between the disease as described by the older writers, and many of the cases detailed in these modern papers. Mr. White who wrote in 1784, mentions that out of 1897 women delivered at the Westminster General Dispensary, five only were attacked with phlegmasia dolens; and out of 8000 delivered at the Manchester Lying-in-Hospital, and their own houses, only four;—whereas our modern practitioners would appear to find them as plenty as blackberries. Again, the phlegmasia dolens of the old school is by no means a fatal disease, on the contrary Mr. White declares that, when not complicated with any other disease, he has never known it have a fatal termination. Dr. Hull, to be sure, informs us that he has seen cases end in suppuration, and even in death, but he speaks of these as somewhat rare occurrences. Now the phlegmasia dolens of the new school is one of very great danger indeed, attended with grave and typhoid symptoms, and followed by sequelæ never alluded to before the present day.

But this is not all. Not only are these great discrepancies between the disease as described of old and of latter years, but even amongst the several cases of our modern phlegmasia dolens. If the old descriptions are to be taken as a standard of the disease, then some of the cases related by Dr. Lee and others must certainly be rejected. Take for instance the first case on the list, that of Mrs. Edwards; it is an excellent specimen of the consequences, immediate and remote, of inflammation of the veins, but none of phlegmasia dolens. The same may be said of some others, more particularly of three cases quoted from the paper of Mr. Wilson, in which there was plenty of phlebitis, but not a morsel of phlegmasia dolens. Dr. Lee endeavours to get out of this scrape by supposing that the inflammation of the hypogastric vein *only* produces the disease *when* it has extended into the principal veins of the extremity. But allowing, as we are really inclined to do, that inflammation of the iliac and femoral veins in the female after parturition, does commonly originate in the uterine branches, still if it can be proved that the swelling of the limb is only set up when the latter is established, the two must be connected as cause and effect, by all the rules of right reasoning and the dictates of common sense.

When we look at the instances of phlebitis which the practice of surgery affords, we are equally at a loss to discover a

state of things corresponding to phlegmasia dolens. In inflammation of the veins of the arm after venesection, it is true that swelling of the limb takes place, but there is generally much disposition to cedema, and more or less discolouration of the integuments. In inflammation of the saphenæ or femoral veins, the same is frequently observed, and even when the skin remains white, there is more cedema than in the old, and we may say orthodox phlegmasia dolens. Nay in some cases of inflammation of the iliac and femoral veins which we have witnessed there was little or no perceptible swelling of the limb at all, and none of that exquisite pain on pressure which characterizes the affection under consideration.

*Case.* A young man 22 years of age, was admitted into St. Georges Hospital under the care of Mr. Hawkin's on the 15th November 1829, with severe gun shot wound of the right arm and elbow joint. He refused to submit to amputation; and attempts were made to save the limb, but swelling, erysipelatous inflammation, and sloughing of the cellular membrane of the limb succeeded, with diarrhoea, prostration, cough, and mucopurulent expectoration. From this state he rallied, whilst a wasting suppuration was set up in the limb, and the night-perspirations with the other symptoms of hectic were profuse. On the 21st of December, the limb was amputated. For a few days he appeared to be doing well, but on the 26th it was necessary to open a large abscess over the sacrum, when half a pint of fetid pus mixed with blood was evacuated. The night-sweats persisted, on the first of January he had a long continued rigor, the soft parts of the stump retreated from the bone, and on the 4th the poor fellow died.

*Sectio Cadaveris.* Adhesions of pleuræ on left side of chest—consolidation of lungs, not peripneumonic—hepatization of lungs in parts—a small abscess, the size of a pea, on the surface of the right lung—no tubercles.

Large sloughy abscess over the sacrum, with portions of dead bone exposed, and a great quantity of coagulated blood. Another abscess in the left side of the pelvis, extending from Poupert's ligament to the sacro-sciatic notch, but not communicating with the former abscess. External iliac and femoral veins in the neighborhood filled with half-organized, laminated coagulum, semipurulent in its centre.

An abscess in the calf of each leg.

† In this case there was no perceptible swelling of the limb whatever; nor had the slightest pain in it been complained of during life. In another case of inflammation and obstruction of

femoral vein, which we witnessed sometime ago, at the same hospital, there was tenderness in the course of the vessels, but little swelling, and that not resembling, in the slightest degree, the phlegmasia dolens. The case was that of a man named Frederick Wells, whose leg was amputated by the late Mr. Rose, for compound fracture of the ankle joint; it was published in the Medical Gazette, and has been copied into Mr. Arnott's memoir on Phlebitis. In a man whose thigh was amputated last Summer by Mr. Keate, and in whom the femoral and iliac veins inflamed, there was not even pain on pressure, and no swelling of any consequence. We might mention some other examples of precisely the same description, but it would merely be exhausting the patience of our readers to no purpose.

From the arguments we have adduced, the facts we have observed, and some other considerations, into which we cannot enter at present, we are led to doubt and dispute the correctness of Dr. Lee's position, that phlegmasia dolens is now to be considered as merely one of the remote consequences of uterine phlebitis. But while we think that Dr. Lee, and the other medical men who have laboured in the same vineyard with him, have failed in establishing the soundness of their opinion as an axiom in pathology, we are willing to admit, and ready to avow, that they have effected a great deal in this department of medical science. They have proved that many cases, so closely resembling phlegmasia dolens as hardly to admit of being distinguished from it, are essentially inflammation of the iliac or femoral veins; and they have rendered it probable, that the majority of the instances of that affection are dependent immediately or remotely on venous inflammation. We cheerfully make this acknowledgement, which is due to the perseverance and laborious research of Dr. Lee and his confrères.

Farther than this we cannot go, nor, in the present state of our knowledge, do we think that it would be right to do so. It is much more reasonable and philosophic to advance cautiously, than rush on with precipitate rashness; in the first case the progress is sure, although it may be slow—in the second we may fall into fatal dangers; and even if we escape, it is only at the expense of toilsome retreats, and many a bewilderment amidst the treacherous mazes of error.

We believe that many of the disputes on the nature of phlegmasia dolens are like the celebrated *rencontre* between the knights on the different sides of the shield, or the quarrel in the fable on the colour of the chameleon. It seems to us that

the enlargements of the extremities in parturient women, and in patients, male and female, not parturient, are of many and various kinds. Surely nothing can present a greater contrast than an ordinary case of phlegmasia dolens, and one of those frightful cases of venous inflammation described in the present paper and in others, in which purulent deposition take place in various parts of the body, in the joints, in the cellular membrane; with sloughing of the eyes, gangrene and sloughing of the lungs, the worst description of typhus, and so on. Surely such cases must differ in something more than in degree; surely it is natural to conclude that the lower extremities are subject to several various affections, of very opposite degrees of suffering and danger. Take, for instance, the following case, related by Dr. Lee, of "severe affection of the joints after parturition."

*Case.* Mrs. Pope, æt. 40, No. 7, Feathers Court, Drury Lane. She was delivered on the 26th of Oct. 1827, of her fourteenth child after an easy labour, and appeared to recover favourably until the 3d of November. Without any obvious cause, she was then suddenly attacked with a severe rigor, which was speedily followed by intense headache, vomiting, general soreness of abdomen, and suppression of the lochia.

Nov. 6th, 1827, (eleventh day after parturition). The symptoms now observed are, great prostration of strength, laborious respiration, with pain at the bottom of the sternum, and frequent hacking cough, pulse 135, and extremely feeble; skin hot and dry; the lips parched; and teeth covered with brown sordes; tongue of a deep red at the edges, dry, chapped, and covered with a yellow fur in the centre. Occasional retching and vomiting; bowels confined; lochia suppressed. The abdomen is perfectly soft and natural, but feels generally sore on being pressed. She complains of acute lancinating pain in the vertex, and of pain and loss of power to move the left inferior extremity.

"On examining the limb, there are several hard lumpy cords found running up on the inside of the thigh, in the direction of the superficial veins, which are very painful to the touch. The integuments over these are not discoloured.

"The middle finger of the left hand is also exquisitely painful, and on examination, is perceived to be much swollen around the second joint, where the integuments are of a dusky red colour.

"7th. She has been delirious in the night, and is now incoherent, with a peculiar wildness of expression in the countenance. The general debility has greatly increased; the respiration is still more hurried; and the pulse is 140, soft and com-

pressible; the tongue is brown and dry; the muscles of the face and extremities are affected with tremors; the whole surface of the body is covered with a yellow suffusion.

"8th. She is in all respects worse; there has been violent delirium during the night; and she is now roused with difficulty. The respiration is still more oppressed, and the pulse so rapid and feeble as not to be counted. The countenance dejected and deeply suffused, as is the whole surface of the body. The swelling in the joint of the finger has increased, and another painful diffused swelling along the fore-arm has occurred in the night, with slight discoloration. The whole of the right superior extremity has also become stiff, and so painful, that attempts to move it produce violent pain. The swelling and hardness in the course of the superficial veins of the thigh are diminished.

"9th. Complete collapse took place, and she sunk in the course of the afternoon. On the 10th I opened her body, with Mr. Prout of Welbeck-street, who occasionally saw her with me during the progress of the disease.

"*Dissection.*—The intestines were distended with gas; their peritoneal coat had every where a healthy appearance, except a small portion covering the ileum, which was of a bright red colour, though it was not sensibly thickened. The lower part of the omentum, and portions of the mesentary and mesocolon, were also more vascular than usual, but no lymph was effused in these situations. The mucous membrane of the stomach, small and great intestines, was remarkably pale and bloodless. The left Fallopian tube, and fundus of the uterus, was of a deep red colour, but the sinuses of the uterus, and its muscular coat, were quite healthy. Permission was not obtained to examine the head, chest, or extremities." 223.

In another case related by Dr. Lee, the patient had suffered, during the latter months of gestation, from œdema and a varicose state of the veins of the lower extremities. Two days after her confinement she began to complain of pain in the superficial veins of both legs, and, during the subsequent week, a diffuse swelling and erysipelatous redness of the surface took place in the calf of the left leg, and, to a less extent, in that of the right. The usual constitutional disturbance from phlebitis ensued, and on the seventh day, the veins being laid open in two places, a considerable quantity of purulent fluid was discharged. Two abscesses formed above the left ankle and were opened, and a small abscess also formed above the right knee. The patient sank, and died on the 14th day from the commencement of the symptoms.

*On dissections:*—The cellular membrane of the extremity swollen and infiltrated with red-coloured serous fluid—several abscesses beneath the skin in the calf of the leg, and an extensive collection of purulent fluid in the interstices of the gastrocnemii muscles. The branches of the saphena converted into impervious cords, the saphena itself lined with adventitious membrane, the coats of the femoral vein, between the opening of the saphena and the ham, thickened and corrugated, the femoral, above the junction of the saphena, and the external iliac, thickened, contracted in diameter, and lined with a thin coating of lymph.

Here there was inflammation of the veins of the extremity in abundance, but no phlegmasia dolens. Our author likewise gives the case of a lady who had suffered for some time from cancer of the os uteri, and was suddenly seized with vomiting, diarrhoea, and severe pain of the uterus. She lived from the 9th of May, when she was attacked, to the latter end of June, when she died, and was examined by Mr. Griffith, of Tottenham Court Road. *On dissection*, the uterus was found partly destroyed by cancerous ulceration, and the uterine branches of the left hypogastric vein, the left spermatic, and the veins running along the side of the body of the uterus were found more or less plugged up and lined with lymph.

Some other cases of a similar kind are related by our author, and the paper terminates with an appendix; consisting of a case from Mr. Cæsar Hawkins, and one from Mr. Copland Hutchison. The former is curious, from the absorbents and receptaculum chyli, not the veins, being filled with pus. The patient had been brought to bed in St. George's Hospital, and was attacked, two days after delivery, with symptoms of puerperal peritonitis of a low character, of which she died in two days more.

Here our analysis of Dr. Lee's memoir terminates, and comment would be superfluous after what we have already said. We regret that our narrow limits have prevented us from indulging in some remarks that we could have wished to offer, and prevented our entering on some questions that we could have wished to discuss. Regrets, however, on this occasion are unavailing, and a future opportunity may perhaps leave us nothing to deplore. We can only say that we have derived much instruction from the perusal of Dr. Lee's memoir, and we recommend every member of the profession, whether engaged in the accoucheur department or not, to veige attentively to the valuable facts it contains. We part from the Doctor with many thanks.

## Abstract of Foreign Medicine.

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### PRACTICE OF SURGERY.

*Intermittent Ophthalmia.* Periodical pains are generally soon detected as such, and the patient is spared much effusion of blood; but when symptoms of inflammation accompany the neuralgic affection, the periodicity of the complaint is too often overlooked, or disregarded, and depletory measures are carried to an extent that increases the evil, and protracts its cure. The following case is deserving of record.

A man turned 30 years of age had been a soldier, but, for some years prior to 1827, had worked in a cotton manufactory. In the spring of the last mentioned year, he became affected with a severe ophthalmia, first of the right, and subsequently of the left eye. This at length subsided; but in three months afterwards, the inflammation re-appeared in the right eye, with a periodicity of eight days, in the following manner. After being some hours in bed, the patient was awoken by violent pain in the eye, accompanied by lachrymation, redness, and such a sense of distention that he could scarcely be persuaded that the eye was not bursting from the socket. The feeling of sand in the eye was also very distressing. These symptoms would continue during the succeeding day, till towards the evening, when the pains would diminish and ultimately cease, leaving the eye in a state of complete epiphora. On the third day, the organ would appear quite sound. Some degree of aversion to light, and lachrymation, however, continued occasionally, during the intermissions, especially in particular states of the weather. These paroxysms returned every eighth day. In the winter of 1827, the accessions began to come on in the afternoon, instead of the middle of the night, continuing with great severity till the next morning, and preventing sleep. In the intervals, he carried on his usual labours. On the 8th of April, 1828, he received a blow on the left eye, which instantly deprived him of sight. He did not apply for medical assistance till the 19th of May, when marks of inflammation were visible both in the conjunctiva and sclerotica, with an ulceration on the transparent cornea. The anterior chamber of the eye was very turgid with aqueous humours—the eye prominent, and the pupil drawn obliquely downwards and outwards, while it was remarkably contracted. At this time, he said nothing about the preceding periodical affection of the right eye, and the case was treated as one of traumatic ophthalmia. But the old intermittent affection of the right eye now returned, and with intervals of three instead of eight days. The periodicity at length was so remarkable that proper means were used, and the disease stopped.\*

Such cases are more common than are imagined. Within these few weeks we were requested to visit a poor artisan, who, in the year 1829, was laid up with a complaint of the above kind for seven or eight weeks, to the almost

\* Journal Complémentaire, Jan. 1830.

ruin of his family. The pain was on the left side of the head, and the left eye became every day red and apparently inflamed, with excessive lachrymation and intolerance of light. Repeated depletion and the usual anti-phlogistic means did no good, but rather aggravated the complaint, which appeared to have given way to time rather than physic. When we first saw this patient, in the height of a paroxysm, such was the apparent intensity of inflammation in the eye, that we ordered a repetition of leeches to the temple. We soon found out our mistake, and ascertained that the malady came on regularly every morning at six o'clock. The arsenical solution and quinine cut short the complaint in three days, and the man returned to his work, rejoicing that this year's attack was so short, in comparison with that of the preceding year. Many such cases have come under our notice during the last three or four years, and we are convinced that no one would suspect the real nature of the complaint unless he happened to notice the periodicity. The phenomena are exactly those of inflammation, excepting that the pain is more excessive than in common ophthalmia. Yet we really believe that the term inflammation here, is hardly warrantable. It is rather an afflux of blood to the part, occasioned by, and no doubt augmenting the intensity of the nervous pain—the vascular phenomena rapidly subsiding when the neuralgic orgasm is over. The effects of genuine inflammation would not—could not, so suddenly disappear.

*Mr. McFadzen on Water-Dressing in Wounds, Ulcers, Diseases of the Skin, &c.\** The water doctors are oftentimes a by-word in the mouths of the profane and of those whose potations consist of a more exhilarating beverage, but they will now be supported by water surgeons. Dr. Macartney, of Dublin, taking a hint from Homer in the management of wounds, has revived the old water practice, and, as is usual with new medicines, or with old ones furbished afresh, it is achieving miracles. Far be it from us to hint that this water dressing is a milk and water matter; on the contrary, we bow, as in duty bound, to the majesty of potent facts. Mr. McFadzen, then, of Buttevant, in Scotland, having fortunately met two of Dr. Macartney's pupils, and received intelligence of the worthy Professor's plan, resolved to adopt it in the dispensary of which he has the superintendence. Mr. McF. is delighted to say, that "his success has considerably exceeded his most sanguine expectations, and he has little doubt that Dr. Macartney has effected, by scientific knowledge and acute observation, a valuable improvement in the art of practical surgery." So be it.

"The principle is to excite an agreeable sensation in the part affected; for if this be present, inflammation cannot exist. The parts of which the human body is composed being naturally humid, the application of a fluid such as water, which is of the least irritating nature, affords an agreeable sensation, and prevents the necessity of inflammation, by doing away with the sense of injury sustained by the parts, it being a law in the animal economy, that inflammation will not arise after an injury done to a part, unless that part feel sensible of the injury.

"The mode of applying this remedy is exceedingly simple, and fortunately attended with very little trouble. A piece of lint dipped in cold water is to be applied with the soft side to the part, and covered with oiled silk, which should extend considerably beyond the limits of the lint, and retained in its place by a light bandage, or any other means the practitioner may deem proper. Any other substance capable of preventing evaporation, and sufficiently light and pliable, such as very thin Indian rubber, would answer the purpose as well as oiled silk. The dressings should be removed three times a day, or less frequently if the secretions from the part are trifling, for the

\* *Ed. Med. and Surg. Journal*, No. 111.

purpose of wetting the lint as it becomes dry, and freeing it from the secretions of the wound or skin, which would in a short time become irritant; therefore it is not sufficient that the lint should be merely moist, for this moisture may be occasioned by perspiration or other discharge of the part collected under an impervious substance. Hence the lint must either be occasionally removed, or well-washed in cold water, and in like manner the oiled silk or Indian rubber.

"From what has been stated, it must appear that the good effects of this treatment depend on the production of steam at the temperature of the surface of the body, which, being retained by the impervious silk, subjects the part constantly to an atmosphere of that vapour.

"I hope it will not be considered irrelevant to mention here, that oiled silk is also a valuable substance for applying the emollient poultice, having this advantage over linen or calico, that it retains its moisture and heat, at least the heat of the surface over which it is placed, for a greater length of time. I subjoin a case to illustrate its use in this way, and to which I not only attribute the favourable termination of the case, but even the absorption of pus after fluctuation became evident."

With the foregoing rationale of the water-practice we will not quarrel, although we are very far indeed from agreeing in all the principles or theories advanced. Let us look at the *facts*, the cases, by which the general issue is to be tried.

*Case 1.—Incised Wound.* A poor girl, æt. 16, presenting herself with contraction of the flexor tendon of the middle finger of the left hand, Mr. MoF. made a longitudinal incision down to the tendon in question, and cut it across. The finger was then straightened with some force, secured by a splint on the back of the hand, and cold water applied to the wound by means of the lint and oiled silk. The wound healed rapidly, and unless minutely examined, no cicatrix is observed.

*Case 2.—Contused Wound.* M. B., æt. 10, had the nail of the great toe of the left foot shattered, and the integuments divided to a considerable extent, in consequence of a large stone falling on it. The parts were brought together and secured by sticking-plaster, and water-dressing applied over it. In a few days the dead and sloughy parts began to separate, and a bread and water poultice was substituted for the water-dressing, but as soon as the separation was effected, the latter was resumed. In about five weeks after the accident, the cicatrization was far advanced, and the nail had considerably advanced in its growth.

Now, with every disposition in the world to believe, and with as large a stock of faith as any medical journalist should possess, we really cannot discover any uncommon celerity in the foregoing cases, nor perceive any very miraculous effects from the cold water. We cannot but think, and we say it in all humility, that had any of the usual methods been adopted, the cases would have done just as well as they did under the water-dressing of Dr. Macartney. Every body knows that it is usual, after dressing recent wounds, to apply spirit lotions, and it seems to us that the professors of the new light do nothing more than subtract the spirit and apply the water. In fact, the whole business reminds us strongly of the sympathetic powder of Sir Kenelm Digby, the virtues of which were so potent in healing a wound, when rubbed on the lance or the brand that had inflicted it!

But she has ta'en the broken lance,  
And washed it from the clotted gore,  
And saved the splinter o'er and o'er.

As a refrigerant lotion, or as a harmless application, cold water, applied in the manner directed, is well enough no doubt; but we do question much whether its virtues would go far in the treatment of an obstinate ulcer, or in any case that fairly required a decided remedy. When in London, Dr. Macart-

ney paid a visit to St. George's Hospital, and at his suggestion and recommendation, some cases were treated by the water-dressing. Sore and sorry we are to say, that its powers did not seem to us to be at all commensurate with the sanguine anticipations of its able patron, and, as the proof of the pudding is said to be in the eating, we may mention that this method is never pursued at present in the hospital. Had it been an elixir vite, probably it would not have sunk into so early an oblivion. Before concluding, we beg leave to give Mr. McFadzon credit for singleness of purpose, and the greatest fairness in the statement of his facts. If we differ from him in opinion, it is perhaps to be considered as our misfortune, that we cannot see the truth so clearly as he does.

[Johnson's Journal.]

*M. Dupuytren's Treatment of Specks on the Cornea—from Dr. McLellan's translation of Ratier's work.* "For some years patients have flocked to the Hôtel-Dieu, afflicted with specks of the cornea, as they formerly resorted to Dessault, for the cure of chronic and scrophulous ophthalmia. The treatment pursued by M. Dupuytren is the following:

"Detraction of blood from the arm, if there be much irritation.

"Leeches to the temple, if the irritation be less considerable.

"One or two mild purgatives at an interval of two or three days.

"After this a seton made of threads of cotton, and of a cylindrical form, introduced at the upper part of the neck, and passing several inches under the skin.

"Lastly, the insufflation of the subjoined powder on the eye, repeated morning and evening, by means of a quill, while the eyelids are kept separated.

"Oxidi Zinci Imp. Præp.	} — aa partes æquales.
Sacchari Candi Albi	
Submuriatis Hydrargyri	

"The eyes should neither be washed nor rubbed after the insufflation.

"When there does not exist any disease of the eyelids, nor inflammation of the conjunctiva, the insufflation of the powder generally suffices to resolve the specks.

"Those which are recent and slight, are completely dissipated in a few weeks by the insufflations. The specks that have existed longer, that are thicker and broader, usually give way in a month or six weeks, and specks that have occupied almost the whole cornea, covering the pupil, and intercepting entirely the passage of light into the eye, have been frequently seen to disappear completely in the course of a few months."

## PRACTICE OF MEDICINE.

I. *On the Diseases of Children, by Mr. Marley.—Practical Remarks on the Use of Opium.* "In children labouring under severe abdominal pain from an irritable state of the intestinal canal, we often find an appropriate dose of opium (it will be understood that I mean any of its preparations,) given either in form of draught or enema, produce beneficial and speedy relief. The surface, which was before dry and parched, becomes moist, and is succeeded by a gradual cessation of pain, and probably by a sound and undisturbed sleep. But this picture is sometimes reversed, for instead of being quieted, the child will start up suddenly, screaming out as if frightened, or he will moan during a restless and imperfect slumber. When opiates produce the latter train of symptoms, I have generally observed, that on the occurrence of slight diaphoresis, the patient becomes tranquilized, and a calm and quiet sleep will often follow. The warm bath will be found of great utility by producing slight moisture on the surface, and should therefore be employed with that view.

"The power of opiates, in allaying irritation, is probably no where more marked and efficacious than in excessive evacuations from the bowels. In

such cases it is in general best to exhibit it in the form of enema; but even in this form caution should guide us in its use. In one instance I have known an injection, containing a very small quantity of laudanum, produce great cerebral excitement, extreme thirst and vomiting.

"In those cases of excitement arising from nervous irritability, its well-timed use will often prove decisive. After bleeding in inflammation of the bowels, opiates will often be found of great use, and should be exhibited per anum. In colic pains they prove highly efficacious, and should never be neglected."

Mr. M. properly considers opium as contra-indicated in affections of the lungs, where there is dry cough and quick pulse—also in all cases of increased action of the brain or its membranes. The author conceives, that "the lives of many children are annually sacrificed by the indiscriminate and improper use of opiates." He instances some cases where mischief was produced by the exhibition of opium to children, and indeed such instances are by no means rare—especially where quack medicines are employed. In truth there is rarely any necessity for the exhibition of opiates to children, excepting in some severe bowel complaints, and then they should be in the form of Dover's powder, or other medicines that determine to the skin, and alternated with castor oil, or other mild laxative. The diseases of children are almost all of an inflammatory character—and the removal of inflammatory action by proper depletion is the best mode of conquering excitement.

**II. Local and General Bleeding.**—Under this head, Mr. Marley has made some judicious remarks. In all cases of internal inflammation, of a serious character, he advises general bleeding in children—from the arm in visceral phlogosis—from the external jugular, or from the temporal artery, in cerebral inflammation. Mr. M. has seldom found any difficulty in opening the jugular vein, however young the child; but in infants under 12 or 15 months, it is often difficult to open the veins of the arm. By immersing the member in warm water, the facility of the operation is increased. When these measures are not adopted, or not deemed advisable, he recommends cupping in preference to leeches. His objections to leeches are urged, we think, too strongly; and the great preference of cupping is not very consistent with the following passage.

"I have known considerable nervous excitement produced in children by cupping (particularly on the chest,) and occasionally even in adults. I have likewise known extensive local inflammation produced by this operation, but I have never known it end in suppuration."

We have often seen the blaze of the spirit, the pressure of the glass, and the stroke of the scarificator occasion a wince in men of strong minds—and we cannot reconcile to our minds this lavish praise and recommendation of cupping in cases of infantile disease. In children, the feelings are every thing, and the reasoning powers nothing. We have seen the application of cupping-glasses induce instant convulsions, and such a prejudice excited against a practitioner in the minds of the parents, that he was never afterwards employed in the same family. The feelings of the community are not to be outraged or trifled with—and especially when we are urging measures that are really not more effectual, though far more unpalatable than others of a milder character. Nothing is more common than to see practitioners, who are deficient of tact and discretion, ordering a poor person who can scarcely procure bread for his family, to give half a guinea to a cupper, when half a dozen of leeches, costing a couple of shillings, would be equally beneficial and much less formidable.

**III. Croup.**—So much does Mr. Marley dread this disease, that whenever he meets with a "child labouring under cold, if it be accompanied by a dry

hoarse cough, with pain and difficulty of breathing, he very generally has recourse to the measures used for croup"—namely, abstraction of blood from the jugular vein—an emetic—and then a dose of calomel. To this practice in real croup, we do not object; but whether the emetic plan is the most proper for a sharp attack of pulmonic inflammation we have some doubts.

More than a third of the volume is occupied with the subject of cutaneous diseases, and the execution of the whole is respectable. Mr. Marley's remarks are almost entirely practical, being founded on observations made at the bedside of sickness, rather than drawn from books. This is, perhaps, the best recommendation of the work. *[Med. Chir. Rev.]*

## OBITUARY.

At 9 o'clock, A. M. July 25, departed this life, at the residence of his mother, in Boston, JOHN DOANE WELLS, M. D. professor of Anatomy in the University of Maryland.

Never, in the exercise of our editorial office, has there occurred to us a duty so painful and reluctant, as that of announcing the death of our excellent and endeared friend—our eloquent and learned associate. He has fallen, another victim to the cause of science, and on an altar kindled by the generous ardour which glowed in his own breast. His disease was the direct result of intellectual toil and the conscientious discharge of his duty to others, while he forgot himself.—The well known lines of Byron are as applicable to our friend, as if they had been penned for the occasion of his death.

Unhappy Wells! while life was in its spring,  
And thy young fame just waved her joyous wing,  
The spoiler came, and all thy promise fair  
Has sought the grave, to sleep for ever there.  
*Oh! what a noble heart was here undone,*  
*When Science' self destroyed her favourite son;*  
Yes, she too much indulged thy fond pursuit;  
She sowed the seed, but death has reap'd the fruit.  
'Twas thine own genius gave the fatal blow,  
And help'd to plant the wound that laid thee low.  
So the struck eagle, stretched upon the plain,  
No more through rolling clouds to soar again,  
View'd his own feather on the fatal dart,  
And winged the shaft that quivered in his heart.

Keen were his pangs, but keener far to feel,  
He nursed the pinion which impelled the steel,  
While the same plumage that had warmed his nest,  
Drank the last life-drop of his bleeding breast."

A French biographer happily remarks, in commenting on the premature death of a devotee of science, that nature seems, as it were, alarmed at the keen scrutiny of those who look most deeply into her hidden stores of knowledge, and exacts from them, on the instant, the debt which we must all ultimately pay.

Dr. Wells had been sick about four months—was attacked after a fatiguing journey in the mail-coach, early in March last, from Baltimore to N. Brunswick, with what was termed Gastro-Enteritis, which nearly proved fatal at the time. Under the skilful treatment of his colleague, Dr. De la Mater, and his uncle, Dr. Doane, and other medical counsellors, through the blessing of Divine Providence, he partially recovered, so as to return to his mother's in the month of May.—As he seemed to be convalescent from his gastric affection, he experienced alternately paroxysms of head-ache and of asthma. So severe had been the affection of the head, that the right eye had lost the power of vision, and the vision in the left had become dim. The stomach and bowels had, all the time, been exceedingly torpid, no dejection without either cathartic or enema: and such had been the irritability of the stomach, he could take, a great part of the time, nothing but liquids in tea-spoonful doses; he experienced, however, intervals of relative comfort, when his family and attending physician seemed almost sure that he must get well. He remained relatively comfortable until the warm weather of July last seemed to wilt him down. On Saturday 24th, he had paroxysms of lancinating pains through the stomach and bowels. On Sunday morning, after an exquisitely severe attack with pain, respiration ceased, without the apparent notice of his attendants.

This disease had been so complicated and obscure, and such a variety of opinions had been expressed by attending physicians, and all equally entitled to confidence, that the patient himself

had repeatedly requested his uncle, Dr. Doane, who had been in almost constant attendance, since his arrival in Boston, that his body might be carefully dissected after his death by a skilful anatomist, to detect, if possible, the origin, cause and seat of his disease. In obedience to the very letter of this death-bed request, Dr. Doane caused Dr. Warren to be applied to, to conduct the post-mortem examination.

This day, (July 26th,) at 11 o'clock, A. M. 26 hours after death, Dr. Warren began the examination in presence of several physicians and a number of Dr. Wells' pupils.

The body was much emaciated—the face wore the expression of a severe last agony.

*Brain.*—Dura mater, flaccid, otherwise healthy in aspect, longitudinal sinus quite empty, and free from coagula. The brain was of unnatural paleness and the veins of the surface free from blood. Serum to a larger extent than common existed between the arachnoid and pia-mater. There was water in the ventricles, which seemed to have been enlarged, and as though absorption might have diminished the quantity, which fact was substantiated by the flaccidity of the dura-mater—the communication between the ventricles was enlarged. Plexus choroides, pale, as if it had been immersed in water. The pineal gland enlarged,—fourth ventricle enlarged. The medulla oblongata was indurated. The substance of brain was rather flaccid, the parts, however, very distinct.

*Chest,*—was remarkably capacious, a pint of water was found in each cavity. The right lung, at upper margin, adhered to the pleura, and in immediate vicinity of adhesion was tuberculated—the air vesicles were remarkably distended with a watery mucus, in other respects healthy. The heart was remarkably large, as large, almost, as is sometimes seen from the distressing disease, carditis. The left ventricle, exceedingly thick and firm. The aortal valves at the base were cartilaginous—internal coat of large arteries was of a pale yellow colour. Pericardium natural. Right ventricle very free from blood.

*Abdomen.*—Liver was large, but healthy. Gall-bladder dis-

tended. The complexion of the liver and of the abdominal muscles was exceedingly dark. The omentum was free from fat. The pancreas was hardened, and enlarged from before backward. The stomach and bowels were much distended with fluid and fæces, and loaded with mucus. The serous coat of abdomen exhibited no marks of inflammation. Cavity of abdomen contained much serum. A degree of redness in cardiac portion of stomach. Pyloric orifice free from disease. Mucous membrane of stomach remarkably charged with mucus of yellow colour. Kidneys were small but healthy. The spinal marrow was indurated, and the cellular tissue in neighborhood inflamed. There was water in the cavity between the coats.

Dr. Warren expressed the opinion that the disease of the patient originated in the brain and spinal marrow, as those parts to him exhibited the appearance of most organic disease.

John Doane Wells, M. D. was born March 6, 1799—was graduated at Harvard University in 1817—received his medical degree in 1820—was invited to act as dissector to Dr. Nathan Smith at the commencement of medical lectures at Bowdoin College, in February, 1821,—in May of the same year, was appointed professor of anatomy—in June, 1821, sailed for Antwerp, from which he proceeded to Paris to attend medical lectures, and returned in December, 1822. His first course of lectures was commenced in Feb. 1823—during the same year he was appointed physician to the Boston Dispensary, which post he retained three years—was appointed professor of anatomy and physiology at the Berkshire Medical Institution in Sept. 1826, and in May, 1830, was unanimously elected professor of anatomy in the University of Maryland.

When he commenced the study of medicine, he enlisted his whole powers in his new pursuit. To anatomy he devoted himself with singular ardor; in this study he was greatly aided by his fellow pupil, but his senior as a medical student, Dr. Jesse Smith, who is now professor of surgery in the Ohio Medical College at Cincinnati.

The success of Prof. Wells' first, and only course of lectures

in Baltimore, was enough to satisfy the most aspiring ambition. Being a stranger, and untried among us, he was listened to with that critical attention, from which no fault could have escaped. But he had scarcely opened his lips in our halls, before his friends were seen to dismiss their anxious looks, and to smile with exultation and delight. To few—very few, has nature been so bountiful in those gifts which constitute the orator. His language was beautiful, chaste, and forcible, and was uttered with graceful ease and fluency. His voice was peculiarly clear and audible—his emphasis and inflexions uncommonly happy. His action was animated and impressive.

Few who have the mental gifts which we have ascribed to our friend, are at the same time qualified for patient research, and the toilsome accumulation of facts. But in Wells seemed to be combined every thing necessary to the successful teacher. The materials of his lectures were drawn, with the greatest felicity of generalization, from a rich store-house of well-selected knowledge.

No language, not even eloquence like that of our departed friend, could too vividly express the interest and enthusiasm with which his instructions were listened to by his pupils.

Prof. Wells was not less admired and beloved as a man, than revered as a teacher. It is rare that any one tastes so often of the admiration of his fellow citizens, without feeling something of the intoxicating influence of that circean cup. Even the splendid success which he achieved, however, never rendered him arrogant, or conceited, or vain. What better index than this can there be of a sound understanding, firm moral principle,—generous, kind, and noble affections? Wells could not be envious, for none surpassed him; but how much does it speak of the goodness of his heart and the amenity of his manners, that he never excited it in others.

If to any, this brief notice should seem unworthy of our friend, we would observe that the editor of this journal has been appointed by his associates, to attempt a tribute to his memory, at the opening of the next course of Medical Lectures.





*Lith. of Endicott & Swett.*

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**Original Essays.**

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ART. I.—*Description of an Apparatus for the Treatment of Fractures of the Thigh and Leg.* By N. R. Smith, M. D.

PREFIXED to the present number, is a plate representing an apparatus designed for the treatment of fractures of the thigh and leg. The first form of this instrument was invented by my father, the late Professor of Surgery in Yale College, and was employed by him with very gratifying success for more than twenty years. An account of it, as constructed by him, was published, some three or four years since, in the Philadelphia Monthly Journal of Medicine and Surgery. Since that time, however, the constant employment of the apparatus has suggested to me several improvements which I have found to greatly increase its usefulness, and simplify its construction and application.

Observation has thoroughly convinced me, that no instrument will be generally employed in the treatment of fractures, but one which is made with facility—cheaply, and of common materials; one also which is applied with ease and despatch. Very few practitioners are so provident as to have always ready for

exigencies instruments of a complicated and expensive construction. Even if they possess such, they are extremely apt to be out of repair, and to be generally unfit for use on the spur of occasion. That surgeon, therefore, will do most for this department of practice, who devises an instrument which any individual, with common ingenuity, can construct in a short time, out of materials easily procured.

It is also important that the instrument employed should be one, that when once applied, shall not require constant watching in order to keep it properly adjusted; for if this should be the case, it will certainly fail of accomplishing its end. Experience has suggested, and will confirm this assertion. It is scarcely necessary to say that the apparatus, at the same time that it is simple and permanent, must accomplish, in a satisfactory manner, the indications for which such machines are designed. Whatever apparatus does this, in the best manner, consistently with simplicity of construction, and ease of application, will certainly become the most useful and the most generally employed.

Mr. Amesbury's apparatus for fractures, is probably better calculated to accomplish the indications of treatment, than any other which is at present employed by European surgeons; but it is so complicated in its construction—so expensive and difficult to procure, that although its adaptation is very generally admitted, it is rarely employed, except in hospital practice.

The apparatus here represented is similar to Mr. Amesbury's in the principle by which it acts. It is designed, indeed, to accomplish nearly the same indications, but is so simple in its construction—formed of such common materials, and those so easily put together, that any ordinary mechanic, or, indeed, the surgeon himself may prepare one in a very brief time. The cost of the instrument is trivial.

The material which I now use for the body of the splint, is the stiffest binder's board that can be procured. If those which are very firm are not to be had, two of them should be pasted together. The size of one board, if it be properly cut, is gene-

rally sufficient for both the thigh and leg piece. Sometimes I have had the apparatus made of tin, and I have no doubt that thin sheet iron would prove a very excellent material. Formerly I used to make them of bass or poplar boards, of the thickness of a quarter of an inch, warping them with the aid of steam, or hot water. A pupil of mine informed me that, in the country, upon the spur of occasion, he had once made one of the bark of a sapling chestnut. It was sufficiently firm, and answered the purpose in all respects extremely well. This may be a valuable hint to country practitioners.

But the material which I prefer, is the very thick binder's board. This I cut in two pieces, one for the thigh, and the other for the leg. The thigh piece ought to be, for an adult, about sixteen inches long, thirteen inches broad at its superior extremity, and ten at the lower. The leg piece should be about nineteen inches long, and ten broad at both extremities. These pieces are then to be very slightly moistened with a wetted sponge, or cloth, and then to be bent into a semi-cylindrical shape with the hand. The concavity, however, should be a little deeper than a semi-cylinder, in order that the sides may rise a little above the middle of the thigh, and be somewhat flattened. I have been accustomed to shape these pieces on blocks of wood of the proper form. I warp them over these whilst moist, and binding them firmly with a cord, leave them till they are dry, when they will retain their shape permanently. The block for the leg may, if a very neat apparatus be desired, be shaped, at its upper and back part, like the calf of the leg, swelling out like it. When the board is bent upon it and properly moulded, it will be adapted to the calf of the leg.

The upper part of the thigh piece is now to be carefully pared away, in such a manner as that, when it is applied to the member, the superior margin shall be properly adjusted to the perineum on the inside, and to the tuberosity of the ischium behind. On the outside it may be suffered to project in the form of an angle a little above the trochanter. It is obvious that it must be deeply cut away on the inside, to fit the perineum. A

glance at the plate will give a better idea of this than words can convey. The lower extremity is also to be truncated obliquely, so that the lower convex part shall not project so far as the angle, by about an inch and a half.

The angle of the thigh piece, which projects above the trochanter, is now to have a piece attached to it, which may extend up along side of the body, and be bandaged to it. Sometimes I have done this by nailing a piece of wood to the side of the splint, so as to make a suitable angle. But the better mode is to use a piece of iron, of the thickness of an eighth of an inch. This may be made without a hinge, having an angle at the corner of the thigh piece, the lower leg of it being four or five inches long and applied to the side of the splint—the other, six or eight inches long, and ascending on the side of the body;—or there may be a hinge made at the angle, by merely making the two pieces, which there will then be, a little broader, and rivetting them together at the angle. This will enable the operator to adjust the angle to the attitude of the limb. The lower piece of this hinge may be continuous with the piece which extends down to the lower extremity of the thigh piece, to fortify one of its angles there; this will render the whole more firm.

The iron should have numerous small holes made in it.—Through these it is to be nailed to the splint, which can easily be done, with great firmness, by placing an iron upon the inside of the splint, and clenching the tacks securely on the inside.—The upper piece of the iron hinge is to be nailed, in the same manner, to a piece of binder's board, a little broader and longer than itself, and then to be bent a little inward.

The two lower angles of the thigh-splint are also to be fortified with thin pieces of iron, extending up, along the sides of the splint, the one on the inside about six inches—that on the outside continuous with the hinge above. They should project beyond the angles, about two and a half inches, and be pierced with holes half an inch apart.

Where the thigh-piece is applied to the perineum and tuber of the ischium, the margin should be wrapped with three or four folds of soft, old blanket, and this covered with leather.

The leg-piece should be shaped at its upper extremity like the lower end of the thigh-piece, and fortified in the same manner with pieces of very thick sheet iron; these, however, not projecting beyond the angles, nor having holes, but, instead of them, having short strong pins projecting from the outside, adapted to the holes in the irons attached to the thigh piece. I think it well that the concavity of the upper end of the leg-piece should be a little deeper than that of the thigh.

When I have been desirous of making the apparatus a very complete one, I have appended to it a contrivance for fixing the thigh and leg pieces at any angle that might be desired. This consists of two pieces which are attached, the one to the thigh piece, and the other to that of the leg. The former is a piece of flat steel three fourths of an inch broad, and about ten or twelve inches long. At one extremity it is broad and pierced with holes, for nailing it to the back part of the thigh piece. The other end is narrower, and at a quarter of an inch from its extremity, it is bent up at a right angle. This piece when attached to the thigh-splint projects beyond it, down four or five inches on the back part of the leg-splint. It should have a spring temper. The piece attached to the leg-splint is merely a piece of sheet-iron, or tin, fastened to the back part of the leg-splint. In this there are transverse slits, half an inch apart, to receive the bent extremity of the spring. Whenever the leg-piece is bent upon that of the thigh, the spring will catch in one of these slits and immediately fix the two splints at a permanent angle; and by adjusting the spring to one or other of these holes, they may be fixed at any desired angle.

I would observe, that in using tacks on the binder's board, for the purpose of fastening the various appendages, a little piece of leather should always be put under the head of the tack. When this is done they hold very securely.

When the various pieces of the apparatus are thus put together, the paper should be brushed over with strong glue-water, and as often as it dries this should be repeated three or four times. At last it should be varnished with the black spirit-var-

nish used by saddlers, to prevent its imbibing moisture, and sticking to the limb and the bandages.

*Mode of applying the Apparatus.*

One of the excellencies claimed for this instrument, consists in the ease and despatch with which it may be applied. Commonly I place within the thigh-piece, (in case the fracture be one of the thigh, and it is only in relation to this fracture that I am now speaking) a linen cloth, to keep the skin from contact with the splint. Across the leg-piece I place two bands of firm cotton or linen cloth, about two and a half inches broad, and about half a yard long. One of these is across the upper part of the leg-splint, just below the joint, and is suffered to drop, like a festoon, deep into the hollow of the splint, but not quite to the bottom, as it is designed to support, in some degree, the upper part of the leg. Below this, the calf of the leg will rest in the hollow of the splint. The other band is to be laid across the splint, in the same manner, at the part which will receive the ankle, and is designed to sustain that part of the limb, in such a manner that the heel may be prevented from touching the splint, a circumstance which always creates pain and may produce displacement. The limb having been coaptated, is then to be carefully raised by the hands of assistants, who at the same time keep it carefully extended. The surgeon then brings the thigh-piece separately under the member, and adapts it to the whole lower part of the thigh, and nicely adjusts it to the perineum, ischium, and hip. The assistants grasp this piece and sustain the thigh in it. The surgeon then takes the leg-piece and bringing it beneath the leg, places that member in it, in such a manner that the upper part shall bear on the upper cross-band, the calf resting in the hollow of the splint, and the ankle on the lower band. The iron pieces at the upper extremity are then to be fixed in the upper holes of those of the thigh splint, and the two pieces may then be adjusted at such an angle as may be desirable. Near the knee, it will be necessary to in-

terpose, between the splint and the member, small compresses. The bands on which the leg partly rests are to be drawn to the necessary degree of tightness and pinned beneath the splint.—The whole limb now being suffered to repose in the splint, the patient is almost perfectly at ease, whilst the surgeon proceeds to apply the bandage that is to secure the member in the apparatus.

The bandages consist merely of two rollers, one for the leg and the other for the thigh. These should each be at least four yards in length. The surgeon commences the application of one of these on the foot, as in the ordinary way of bandaging the leg. After two or three turns, he carries it obliquely across the instep, over the margin of the splint, and underneath it to the other side. Then it is again carried obliquely down over the instep, and once round the foot—then again beneath the splint, and spirally up the leg, binding it to the splint. It stops at the knee, so as to leave the angles exposed. Then the surgeon applies the second roller to the thigh, beginning just above the knee, and including both thigh and splint. But the application of this bandage to the hip is highly important. When it has been carried by direct circular turns as high as the perineum, the bandage having reached a point opposite to the great trochanter, is thrown obliquely upward across the hip—over the lower part of the belly and round behind the back—then obliquely down over the anterior part of the hip, into the perineum and again round the thigh.

This turn is to be repeated once or twice and then the roller is to be carried circularly round the body, two or three times, to bind the projecting piece to the side. These circular and oblique turns should be made with great care, as they add very much to the firmness of the apparatus, and the support which it gives to the limb. It makes the thigh and body one piece, a very important indication as we shall presently see.

This being done the surgeon, for the purpose of giving as much extension to the member as it can endure, grasps the leg, together with the lower piece, (while some one supports the

thigh) and detaching the angles from the upper holes of the angles of the thigh-splint, moves them downward as far as appears to him necessary to make the proper degree of extension. As the leg is snugly embraced by the lower piece, and as the upper piece is firmly resisted by the perineum and tuberosity of the ischium, the thigh piece is in effect lengthened by this movement, and the thigh permanently extended. This extension may evidently be increased or diminished at pleasure.

Its application having been thus accomplished, the apparatus, with the limb, is to be placed upon a firm mattress, and sustained by a bolster placed in the splint below the knee. There is then scarcely a possibility of its getting displaced, as, if even the bandage be removed, the limb sinks so completely into the cavity, that its support will be perfect. The apparatus must never be fastened firmly to any part of the bed. This is a very injurious expedient in the application of any apparatus. Whatever splint is used should, in my opinion, be attached to the body of the patient, and always move with it. If it cannot be moved with the limb, in consequence of its weight, or because of the manner in which it is applied to the bed, the involuntary movement of the patient's body from the yielding of the mattress, or the impossibility of preserving one uniform attitude, will certainly change its position, in relation to the splint, and drag with it to the upper fragment of the bone. It is easy to conceive, how, if the apparatus be fixed to the bed, the slightest lateral movement of the body will cause the thigh to press unequally on one side of the splint, and bend the limb at the place of fracture. For the purpose of obviating this difficulty still more completely, I have, in some instances, suspended the whole apparatus, or rather the lower part of it, by means of pieces of hoop, nailed together and placed over the foot and knee. To these, cords were attached, and then secured to the splint.—When they are drawn sufficiently, the whole apparatus and limb will be made to swing clear of the bed. This will be found a very useful expedient. But it is by no means essential to the utility of the apparatus which I have here described, that

it should be even as complex as is here represented. If it be necessary to provide one on the instant, any individual can construct one in a few minutes, which will serve very tolerably for a single case, by preparing the two hollow splints of binder's board, or of warped wood, or of chestnut-sapling bark, and then the ends being cut so that the angles will project farther than I have before described, pinning the angles together with wooden pegs, clenched nails, or tacks. The length of the thigh-piece should be such as to keep the thigh gently extended, and it should project an angle of considerable length along the side of the body. The oblique turns of the bandage around the hip and body are then very important. The bands across the leg-piece are to be used as before, and by drawing or relaxing the upper one, the degree of extension of the thigh may be slightly increased or diminished. The same thing may be accomplished in part by increasing the thickness of the pad in the perineum. The whole apparatus must be swung up; and this is more important than when the splint is more complete, in order that it may not be displaced in relation to the body. It will be necessary also to support it a little beneath the knee, in order to sustain the angle.

The utility of the apparatus in its most perfect form will be best explained by adverting, for a moment, to the various indications, which ought always to be accomplished in the treatment of a fractured thigh.

1. It is of great importance to give equal and firm support to the whole thigh and leg, and to distribute the pressure, which the support occasions, as generally as possible over the whole inferior surface of the limb, relieving the prominent points—the heel, hip, &c. as much as possible. Those who have used the more imperfect splints for this purpose, (and especially those who have worn them) know well the annoyance which the patient suffers from the imperfect accomplishment of this indication. The point of the heel is a part which suffers exceedingly, and is often made to slough. The whole inferior face of the limb lying upon a surface which is not at all adapted to it in

form must be galled in various parts. Surgeons are not generally aware of the mischiefs which result from this local irritation. The mere topical injury is the least of it. When any hard substance is pressing upon a part so as to cause constant pain, there is always an involuntary effort, on the part of the muscles, to withdraw the part from the irritating substance; this produces painful, unequal, and spasmodic contraction, not only distorting the limb, but causing it to contract. Let me illustrate this by a familiar example:—A person has on a tight boot, which pinches a toe, or irritates a corn when he attempts to walk; the muscles of the leg will act unequally in order to relieve the injured part from pressure, and prevent the foot's being applied equally to the ground. Thus the harmony of muscular action is destroyed, and in a short time the person will discover that the muscles of the leg and thigh are excessively sore, and prone, when he sits or lies, to painful spasm. So also, when one sleeps in a posture that is painful, or on a hard support, the soreness which he afterwards experiences in the muscles, is not owing so much to the pressure which they may have suffered, as to the efforts which they have made to relieve certain parts from pressure. It will be found that the limbs of a person who sleeps thus, will by no means repose so tranquilly as on a soft bed; all the muscles of the body will be found, in some degree, in the same state of involuntary tension that they are in when we are sitting or standing. Just so is it with the fractured limb, which does not repose with perfect ease on its support.

There is another evil which results from this injurious pressure. Whenever there exists a fracture, and irritation is inflicted upon any part of the limb, however remote it may be from the seat of injury, it will immediately excite irritation there, and under such circumstances all the unpleasant effects that are the result of irritation will follow. The patient also is made exceedingly restless by the pain and fever which is produced, and distorts the limb by the motions of his body.

If the whole weight of the limb rests upon but two or three points, the softest cushions that can be used will have but little

influence in preventing mischief. A down-cushion is easy only because it becomes spontaneously concave when the member is laid upon it, and because it diffuses the pressure over a considerable surface; but it cannot apply itself so extensively to the surface as a concave, well adapted splint can, nor can it give so easy support, because those parts which first touch the cushion will suffer the greatest pressure. Besides, cushions cannot be made to sustain a limb equally from one extremity to the other, consistently with the support which the limb must receive from the splints and bandages. Hence, then, the advantage of making the splint at the same time the bed of the limb. Soft supports also create too much heat around a limb.

All the ordinary modes of treating fractured thigh are liable to the inconveniencies to which I have alluded. The limb receives unequal support, the greater part of the weight being often thrown upon the heel, or upon some part which is sustained by a band that lashes it to a side splint, instead of reposing on a well adapted surface. It is no evidence, because this pressure cannot first be felt, that it will do no mischief. The pressure of the soft point of the finger, if continued sufficiently long upon a part, would cause sloughing. The pressure on the soles of the feet, produced by standing, well as the part is fortified by cuticle and adipose substance, can be endured but for a few minutes without pain. When we stand we are constantly shifting from foot to foot, but let any one bear the weight of the body on one foot for a few minutes and the pain becomes insupportable. Much more will this be true in regard to parts which were never designed to sustain such pressure. Now the splint which I recommend is designed to be adapted to almost the whole inferior convex surface of the entire limb. The thigh drops snugly into the concavity of the upper splint, and reposes upon it with perfect equality. The leg, at the upper part, rests on one of the cross bands—the calf lies in the hollow of the splint, and the ankle is supported on another sling; while the heel which is least capable of enduring pressure is not suffered to touch. The hardness of the splint by no means renders it a

less easy support. As I remarked before, the softest cushion is easy only because it diffuses the pressure over a considerable surface. Iron would be easier than down if the surface could be accurately adapted, and its relative position could be maintained.

2. The next indication is to place the limb in the easiest attitudes, and to obviate, as completely as possible, the unequal action of the muscles. The very excellent observations of Mr. Pott on this subject have, in my opinion, never been superseded, although a practice hostile to them has been very generally adopted. He says with truth, that the semiflexed posture of the thigh and leg is the easy attitude into which the member is always thrown for repose, and in which the muscles are most uniformly relaxed. When the leg is perfectly extended on the thigh, it is obvious that the muscles on the back part of the thigh are as perfectly extended as they can be, and those on the anterior part as perfectly relaxed. It is true that the extension of the thigh on the pelvis in the straight position will relax the posterior muscles a little, and in the same degree extend those behind, but this will by no means be sufficient to counteract the effect produced by the perfect extension of the leg on the thigh.

When muscles are unequally extended, they will seek to relieve themselves by involuntary spasmodic efforts. The limb, in regard to some of them, is elongated, and they will endeavor to make it shorter. Now it is infinitely better and easier to prevent the occurrence of this, by placing the muscles in such harmonious relation that they will be equally at rest, than it is to counteract it by the permanent extension, which then becomes necessary. Those can easily appreciate the value of this precept, who have witnessed the torture and frequent inefficacy of the permanently extending apparatus. Even should extension be necessary, it will be effected with far more ease when the muscles are in harmonious relation. But I am perfectly certain that the necessity for permanent extension is often

produced by the mal-position of the limb, and the irritation excited by badly adjusted splints and supports.

(TO BE CONTINUED.)

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ART. II.—*Remarks on the Pathology and Treatment of Cholera-Morbus.*

THERE is scarcely any affection, in regard to which it is so necessary for the physician to be armed at all points, as the impetuous disease of which we are about to speak. The weapons with which he combats it should be familiar to his hand, and ready to be used at a moment's notice; for the thief comes almost always at an unseasonable hour, and must be met instantly, and with vigor. The remedies to be employed must be brought quickly into requisition, and must be used with precision; otherwise the patient either perishes, or the mere efforts of nature win the honor of the day.

We have nothing to say of the Cholera of India, for the honest reason that we know nothing about it, except that which every one has learned from the common authors on that subject.

Of the common Cholera of our own country, however, we may presume to speak with some confidence, as we have taken many a lesson in relation to it at the bed side.

Besides the Cholera of India, Dr. Good recognizes:—1, the bilious-cholera, and 2, the flatulent cholera. Now this appears to me to be a very unsatisfactory distinction, for the reason that if it be looked for in practice it will certainly create doubt and hesitation. Every form of cholera is more or less flatulent, and this circumstance should be regarded as an occasional, and perhaps important, symptom, always to be had in view. It should be borne in mind also, that cholera and cholic are very nearly allied to each other, the same causes producing sometimes one, and sometimes the other,—one of them, indeed, not unfrequently terminating in the other. We may therefore regard the cho-

lera styled flatulent as a disease compounded of cholera and flatulent choleric, and he who is familiar with the aspect of both diseases will easily compound his treatment so as to meet the exigencies of the case.

The term cholera signifies a *flow of bile*, and the common cholera of this country is generally regarded as essentially a preternatural flow of that fluid. The incorrectness of the term, as applied to the cholera of India, is now admitted, since, in the most fatal cases, there is no discharge of bile, and the occurrence of such discharge is regarded as a favorable circumstance. I shall maintain the heterodox opinion that the flow of bile is by no means an essential circumstance in common cholera.

#### *Symptoms of Cholera.*

These are so characteristic that the disease is almost always announced to us before we reach the bed side of the patient. The features of the disease are—distressing nausea—violent, and often repeated vomiting, with spasmodic action of the muscles concerned—severe choleric pains—frequent colliquative purging—discharge, both by vomiting and by stool, of a great quantity of fluid, this being frequently bile or mixed with bile, especially in the latter stages of the disorder, but as my observation has instructed me, *very often in the violence of the disease, consisting merely of the exhaled fluids of the stomach and intestines, with scarcely any admixture of bile* till towards its termination. Often there is an eructation of very foetid gas. There is urgent thirst—a coated tongue—very feeble and frequent pulse—irregular respiration, with deep sighing—great prostration of muscular strength—countenance peculiarly cadaverous—not unfrequently coma between the paroxysms of vomiting. A symptom invariably present, and to be particularly noticed, is the death-like coldness of the extremities and the general surface, with a shrivelled aspect of the skin. If the disease threaten to prove fatal, there will occur great restlessness—clammy sweats—increase of coldness, sickness, &c. There is generally no pain produced by pressing the belly. If fatal, it proves so generally in less than thirty-six hours, though I have

seen a patient linger, without pulse, and without the possibility of rousing him by the most powerful stimuli, for five days.

The appearances which are discovered, *post mortem*, are not very indicative of the nature of the disease. The disciples of Broussais, who often denominate the affection duodeno-hepatitis, declare—that there is often seen evidence of inflammation of the mucous membrane of the duodenum, and sometimes of other intestines and of the stomach, together with engorgement of the liver.

*Remote and Exciting Causes of Cholera.*

Cholera very rarely occurs except in the summer months, and is most frequent when the heat is most severe—especially when hot days alternate with cool nights. We must necessarily infer, therefore, that heat is concerned in its production. It cannot be regarded, however, as a direct cause, for uniform warmth, though severe, is not observed to produce the disease. That warmth is necessary, however, as an antecedent to cold, is obvious from the fact that the disease very rarely occurs in winter. Heat then we must regard as a predisposing cause, and cold as the exciting agent. The manner in which they thus act is susceptible of very easy explanation. The relaxing heat of mid-summer dilates the blood-vessels of the surface, and stimulates the nerves of the skin, causing blood in great quantity to be determined to the surface, and creating great irritability of that organ. The deeper organs, and especially those mucous surface which so intimately sympathise with the skin, have their vital energy and much of their circulating fluid translated to the surface. Their action therefore becomes less vigorous—they languish, and become less capable of resisting the aggressions of disease. Now, when under these circumstances cold is suddenly applied to the surface of the body, the great amount of blood which is lingering in the skin, and the unusual degree of nervous excitement which exists there, are suddenly repelled from the surface and must be thrown upon some other organ, or organs. Excitement cannot be at once extinguished in any part of the system, except by depletion. If it be suppressed by cold, or any other

agent, it must necessarily develop itself in some other part. In the production of cholera, then, cold causes a rush of fluids, and of nervous excitement to the viscera of the abdomen.

We are then to regard heat as the predisposing cause of cholera, and cold as the exciting agent. But there are other causes which aid the action of cold in provoking the disease. When food of an acrid and indigestible quality, or in too great quantity, is taken in to the stomach, at a time when the organ is feeble from the relaxing influence of heat, it cannot undergo digestion, and, consequently, obeying merely the laws of inert matter, it undergoes fermentation, and thus irritates exceedingly the organs which cannot digest it. Here we have then an enemy within the camp, who is ready to seize the first opportunity to aid the assaults of the enemy without, (cold). Consequently we find that very few cases of cholera occur but when the sufferer has been recently indulging in excess, or imprudence, and when this is the case, a slight external cause will produce the effect. The irritation within renders the internal organs the centre of fluxion, and the application of cold at the same time to the surface, hurries the fluids inwards in an impetuous flow. From the foregoing remarks it is obvious that there is great absurdity in terming one variety of cholera *accidentalis*, because it is produced by indigestible food, and another *spontanea*, in which heat is supposed to be the cause. Most cases could be referred to neither of these divisions, because in them the two causes conspire.

#### *Proximate Cause of Cholera.*

The first cases of Cholera which I witnessed in practice surprised me very much, on account of the appearance of the fluid discharged. The books had taught me to look for bile, and that the preternatural flow of it was the very essence of the disease. I found it, however, to be, after the ordinary contents of the stomach and bowels had been evacuated, a fluid almost colourless, and possessing none of the qualities of bile. The flow of this fluid I found to continue till the violence of the disease was

passed, and then there was bile discharged in greater or less quantity. Subsequent observation converted my surprise into doubt, and at last my doubts into scepticism. My own experience has thoroughly convinced me that the name of cholera is an untruth, and that the disease thus denominated is so far from consisting in a flow of bile, that the discharge of this fluid from the biliary ducts is often nature's remedy which arrests the disease. I say "often," for undoubtedly there may occasionally be a discharge of vitiated bile, blended with the fluids discharged; nay, there are perhaps cases which strictly merit the term cholera. What I aver, is that *most of the cases thus denominated, consist in a colliquative exhalation of fluids from the mucous surface of the stomach and intestines.* Indeed, I had become satisfied of this fact before I had read the writings of those recent authors who have given us the true pathology of that very fatal form of the disease which occurs in India. I am inclined to believe from what I have seen and read, that the disease is much the same thing in all countries, except that in some districts it is a great deal more violent. I have observed that the flow of bile was rather nature's remedy for arresting immoderate discharges, as is certainly manifest in other cases. Now, where the disease is rapid and violent, re-action would be less apt to take place, and the patient more liable to perish without any flow of bile whatever. But when the disease is mild, nature easily overcomes it by pouring bile into the stomach. We almost always observe that emetics soon cease to act when genuine bile begins to be discharged. Now, whenever cholera is mild, bile will be discharged, and this will be most apt to occur at the time that the physician first sees the patient, for it often is not till the attack has existed for some time that aid can be obtained—the disease most frequently occurring at night.

I am satisfied that the facts on which I ground my opinion are not fallacious from the following physiological reasoning:—

According to the prevailing pathology of this disease, the determination should be chiefly to the liver. But how, let me ask, can the liver be primarily affected by such a repulsion of fluids

from the surface to the internal organs? The liver receives its blood for secretion, by the vena portæ, from the stomach, intestines, spleen, &c. Before reaching the liver, it must all pass through these organs, and it appears to me absolutely impossible that the liver should become thus suddenly engorged by the vena portæ, without the functions of the stomach and intestines first becoming disturbed. It would be very surprising if such a prodigious exhalation should take place from the liver, without its taking place also from the mucous membranes through which the fluids are rushing to the liver.

Another argument, favoring the view which I take of this subject, is founded on the agency which acrid ingesta have in the production of this disease. I have observed that the disease rarely occurs unless some imprudence in diet has been committed. Now what organs should we expect chiefly to suffer from such a cause? Certainly the mucous surfaces of the stomach and intestines, to which the irritation is directly applied. It is true that the liver promptly sympathises with these organs and is always associated with them, sooner or later, in their normal and abnormal functions, but it can only be influenced secondarily. A disease then, which so *promptly* results from the application of such an agent, we should, a priori, suppose to be located in the organ, or organs, on which it first exercises its deliterious influence.

The offensiveness of the evacuations, and the turbidness of their appearance, are no evidence that bile is their principal constituent. Morbid secretions of the stomach and intestines are exceedingly offensive, and often bitter, like bile—so, also, are they frequently discolored without the presence of that fluid.

#### *Treatment of Cholera.*

It is obvious that in the treatment of this affection our attention should first be directed to the exciting causes from which it results. They are our antagonists, and them we must first endeavor to defeat, and then repair the mischiefs which they

have occasioned. Now these causes are cold, without, repelling the fluids, and irritants within. When, therefore, we are called to an incipient case of cholera there are two things which ought to be simultaneously done, or in as quick succession as possible. The physician should first learn what indigestible substance may have been taken into the stomach, and whether it has yet been evacuated in any considerable quantity. If it has not, we must favor the efforts which nature is making to rid herself of it by the exhibition of diluent drinks. Warm water may be given in copious draughts—chamomile tea—barley water, &c. &c.—While this is doing, we should direct that cloths be wrung out in hot water and applied in all haste to the stomach, and wrapped around the extremities. The extremities and surface, being then invariably cold and bloodless, the most prompt means are thus to be instituted to bring back the fluids to the surface, and to equalize the excitement. Ordinarily, I draw the patient down in his bed, till the feet and legs will drop over the margin of the bedstead, and a vessel of warm water being then procured, I plunged them in it, as deeply as possible. A very excellent mode of applying warmth and moisture more generally to the surface, consists in plunging billets of wood in hot water, which they imbibe and then slowly exhale in the state of vapour.—These are to be wrapped in cloths and applied around the body.

There is no remedy employed in the treatment of cholera, to which I ascribe more importance than to external warmth. I have rarely, indeed, seen the disease yield till the surface became warm, and I have as rarely seen it continue, when warmth had once been established.

When warm water alone does not seem sufficient to stimulate the surface to its natural action, I combine salt and mustard with that into which the feet are plunged, and apply mustard cataplasms to the stomach, arms, &c.

The next object which we have in view is to suppress the copious exhalations from the mucous surfaces within, by the employment of some internal remedy which shall exercise a more direct agency. Nothing is so effectual for this purpose as opium. Nothing is ordinarily so powerful as this

article in suppressing internal secretions, and at the same time increasing those of the skin. By its prompt employment we give the fluids a centrifugal determination, and thus directly antagonize the disease. The form in which it is exhibited may vary in different cases. Generally, in the onset of the disease, when we are desirous of making a favourable impression as promptly as possible, it should be exhibited in the form of tincture. I frequently give, under these circumstances, at least a drachm, in some aromatic infusion. But it may often, when the disease is alarming, be necessary to give three times that quantity, and, as much of it may be rejected, to repeat it often. But generally, instead of repeating the tincture, I prefer to give solid opium in combination with calomel, in the form of a pill. The opium thus given is less apt to be rejected, especially because combined with the calomel. The latter article is in many cases eminently beneficial in correcting the secretions of the mucous membranes, and especially in rendering healthy the secretions of the liver, when that organ seems to be particularly concerned. There is no internal remedy in the good effects of which I repose so much confidence, as in this. Generally, I administer, once in half an hour, a pill composed of one grain of opium and two of calomel.

Opium itself is a stimulant, and aids to rouse the system from that state of torpor which prevails in cholera; but it is often necessary to conjoin other means for the accomplishment of this effect. The warm drinks, which we exhibit for the purpose of washing the stomach and bowels, will aid in accelerating the circulation. So also will the external warmth and stimulation, of which I have been speaking. But more direct agents must be employed for this purpose. Warm brandy sling may be given with a liberal hand, when the system is greatly prostrated. Ether and Aqua Ammoniaë are often employed.—The late professor of Practice in Yale College was in the habit of using, for this purpose, the Volatile Tincture of Guaiacum, and found it to be a very effectual stimulus. I should be fearful, however, of repeating it often, lest so acrid an article might

cause inflammation of the membranes to supervene, to which, indeed, there is some tendency in the progress of the affection. I doubt not that the Sulphate of Quinine would be found an exceedingly valuable agent, for the purpose of restoring the tone of the mucous membranes. We know that this medicine may often be given, even when there is some degree of inflammatory engorgement of these membranes, without any very injurious consequences.

Sometimes cholera is obstinately kept up by the retention of acrid ingesta in some portion of the intestinal canal. When this is the case, opium, stimuli, &c., will be used in vain, until we affect the removal of the irritating substance. Generally we may know the existence of such a state of things by the violent tenesmus which persists, notwithstanding the employment of powerful anodynes. The history of the case too, and its cause, will aid us. In such cases, we ought immediately to exhibit opium and calomel in liberal doses, especially of the latter. A grain of opium, with five of calomel, may be given and repeated. As soon as the stomach can be quieted, a mild cathartic may be given.

It is not at all surprising that cholera morbus if not properly managed, and not promptly overcome, should occasionally terminate in gastro-enteric fever. While the symptoms of cholera continue, inflammation cannot well supervene, because the vessels are relieved of engorgement by the copious exhalation which is taking place. But, if by the exhibition of internal remedies this exhalation is checked, while at the same time nothing is done to solicit the fluids back to the surface, and to equalize the excitement of the system, it is obvious that the mucous membranes concerned must become the seat of great, and perhaps permanent, engorgement. Hence the importance of employing the external means of which I have been speaking.

But if, after checking the colliquative discharges, there should occur no reflux to the surface, or restoration of equal action, we should be on the alert to prevent the occurrence of

inflammation, or to subdue it if it may have occurred. The pulse under these circumstances, will have become, in some degree, tense and quick in its beat. The surface will be dry, and of an unequal temperature—the tongue coated—respiration irregular. Under these circumstances it is undoubtedly proper to abstract blood. It is better that it should be done by cups or leeches over the region of the stomach. Blisters may then be employed for the purpose of translating excitement to the surface. The warm bath may also be from time to time employed with a similar intent.

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ART. III.—*Case of Rheumatic Ophthalmia.—Communicated by*  
*Wm. Hüh, M. D. of Baltimore.*

*March 20th, 1830.*—Tom, coloured man, belonging to a gentleman on the eastern shore of Maryland, æt. 25, was placed under my care, to be treated for a rheumatic affection, involving the inferior extremities in their whole extent. But though inflammation, tumefaction, and pain, were general over the lower limbs, the ligaments surrounding the joints were more deeply affected, so as to render the motion of them almost too painful to be endured. The body was very much emaciated from febrile excitement, which was attended every evening with a strongly marked exacerbation, continuing ten or twelve hours without any abatement—tongue dry, with a darkish brown scurf on the middle, and edges red; the functions of the stomach considerably deranged, dejections watery, of a dark brown colour and very offensive, charged with a large quantity of acrid bile, urine scanty, of a reddish brown colour upon standing, depositing considerable sediment.

*Treatment—venesection, cathartics, antimonials, and stimulating frictions, &c. &c.* This vigorous treatment was continued eight days before he seemed to derive much advantage, but by the twelfth day he was entirely relieved.

Being now very anxious to return home, he ventured on his journey before I gave him permission, and, on his passage down in a bay shallop, feeling perfectly free from disease and having been a sailor for many years, he exposed himself to the inclemency of the weather in rendering some assistance to the hands in the management of the vessel. On his return home, two days after this exposure, he complained of much pain over all the anterior part of the head, soreness and tumefaction of the eyes, and, in short, every symptom to complete the metastastical development now established in the form of ophthalmia. A respectable physician was called to see him, who having used all the usual local and general remedies without success, indeed without stopping the progress of the disease in the least, in two weeks resigned the case.

On his arrival in Baltimore, three weeks after his last attack, to be put again under my care, I found the cornea impervious to light, this having been the case for two weeks, ulcerated in one place as large as a pin's head, with here and there muddy blotches. I could observe the iris strongly contracted, owing no doubt to the envelopes of the brain having become considerably involved. He complained much of a severe pain, though rather of a dull nature, extending over the frontal surface and temples, continually present, but becoming more intense at the regular period of exacerbation, which commenced at four o'clock P. M. and continued with unimpaired energy eight hours—appetite good—bowels natural—tongue with a little white fur, urine rather scanty—no soreness or tumefaction of any part of the system below the neck.

*Treatment—one dozen leeches over each eye and temple—a drastic cathartic composed of the comp. extract of colocynth, 10 grs. and sub. mur. mercury 16 grs.* This produced seven or eight copious evacuations. He was placed in a dark room, ordered to take for diet, water gruel, toast and water exclusively. On the third day, leeches again to the temples; mild cathartics; cloths wrung out of cold water applied to the eyes. On the fourth day, he was put upon an antimonial course with the ad-

dition of one grain of calomel a day, and the application of leeches a few more times---strict adherence to the diet before prescribed.

This constituted the course for the first ten days. I then withdrew the calomel and continued the antimony with nitre---established counter-irritation, by the application of a blister over the whole inferior and posterior part of the scalp, commencing about the coronal suture. This was kept on twenty-four hours; and in a few days after the application, the symptoms began to abate. The periodical pains were not so intense, heat in the part much diminished. The symptoms from this time, however, were varying. The application of the blisters to the neck and temples, and over the frontal surface, leeching the temples, mild cathartics twice or three times, with a little alteration in diet, were continued, *pro re nata*, for some weeks before there was a permanent abatement of irritation and arterial excitement. At this time he could observe some light, but could not distinguish objects. The thick, white, and muddy appearance of the cornea was wearing off. He was still enjoined abstinence, and kept upon a purely alterative course. A weak solution of sulphate of zinc was used as a collyrium, one grain to two ounces of pure spring water, to be used four or five times a day. After continuing this course five weeks, he was discharged with his eyes perfectly restored, with the exception that from the increased irritability of the retina, it was unable to bear the ordinary stimulus of light; to obviate which, he was directed to wear green spectacles for a while.

He has since gone to his usual labor, and remains well.

## Adversaria.

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The following cases illustrating the utility of the Splint for Fractured Thigh, described in this Journal, have been furnished me by those who have used it.

N. R. S.

*Baltimore, September 1830.*

TO PROFESSOR SMITH.

*Dear Sir,*—I witnessed some months ago, the employment of your ingenious apparatus for fractures of the inferior extremities, in a case in which the cervix femoris was the point of lesion;—the result of which, in compliance with your request, I with pleasure communicate. Upon the adjustment of this fracture, and the limb being placed in its destined bed—I could not but be particularly struck with the complete and immediate relief, afforded to the patient. The limb was maintained, throughout the whole process of reparation, in a position most comfortable to the personal feelings of the lad, and I do not remember that at any time he complained of suffering inconvenience, or pain. Indeed, it was with unmixed satisfaction, I observed the leg in the lower portion of the apparatus acting as a point d'appui, the resistance of the muscles effectually counteracted and overcome by the gentle, yet permanent solicitation afforded by the gravitation of the body, and thus the fractured extremities maintained in that state of juxta-position, most favorable to their speedy re-union. This went on without any interruption, and was accomplished in very little more time than would have been required, had it been the shaft

instead of the neck of the bone. There remains much less abbreviation of the limb than is common in similar cases. I have never witnessed the application of any apparatus in fractures of this nature that appears to me so admirably adapted to meet the indications in view, or promote a rapid and satisfactory reparation of the injured member.

I am respectfully yours,

JOHN M. HOWLAND.

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*Baltimore Infirmary, August 29th 1830.*

TO PROFESSOR SMITH,

Sir,—The following case of Fracture of the Femur and of the Humerus, which occurred while you were in attendance as Surgeon of this Institution, and which was treated according to the method proposed by you in your Lectures, I report for insertion in your Journal, should its pages not be otherwise occupied.

The simplicity of the apparatus and the facility with which it may be applied, claim the attention of the surgeon, as obviating some of the inconveniences attending the common plan of treatment.

*Case.*—John Lindraumon, æt. 12—was admitted March 5th, 1830, with an oblique fracture of the femur and a transverse fracture of the humerus, just above the cordyles.

The fractures were reduced, and your concave splints applied agreeably to your directions. On the 20th, the splints and bandages were removed and re-applied. On the 24th, the humerus was entirely relieved of the splints, the bone being firmly united.

While the patient wore the thigh-splint he scarcely complained of its giving him the least annoyance, nor did it require any particular attention to keep it adjusted.

On the 26th,—the bandages and splints were removed from the femur, and the bone found firmly united, without the slightest deformity.

JOHN HANSON T. COCKEY.

*One of the resident Students of the Baltimore Infirmary.*

*Baltimore August 28th, 1830.*

PROFESSOR SMITH,—In accordance with my promise, I send you an account of a case, strikingly illustrative of the excellence of the hinge splints.

Mary Curtis, residing in south Exeter street, aged about 9 years, returning from school at noon, was attracted by a recently emptied sugar hogshead lying on its side, into which she entered with a view of eating the sugar which adhered to its inner surface; but hearing a cart approach, she attempted to run out, and was caught between a wheel of the cart and the stave end of the hogshead. After the displaced fragments had been placed in apposition, a hinge splint, as invented by Professor Smith, of Yale College, was applied.

In this case there was an oblique fracture of the right femur, a short distance above the condyles, with transverse fracture of the tibia and fibula, immediately below the knee.

Much irritation and effusion had arisen from twenty-eight hours displacement of the fractured extremities of the femur, and their irritating contact with the soft parts. Notwithstanding these disadvantages, in about five weeks the girl was at play in the street, without the slightest deformity or inconvenience, except some excoriation about the origin of the Gastrocnemii,\* more attributable to the restlessness of the patient during confinement than to any defect in the apparatus used.

Yours respectfully

F. E. B. HINTZE.

\* The apparatus employed in this case was one hastily made and not well adapted to the magnitude of the limb. This was the cause of its producing a little irritation behind the knee.

N. R. S.

## Analytical Reviews.

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SELECTED FROM THE MEDICO-CHIRURGICAL REVIEW.

**ART. I.**—*A Treatise on Neuralgic Diseases dependant upon Irritation of the Spinal Marrow and Ganglia of the Sympathetic Nerve.* By T. Pridgin Teale, &c. p. 117. 1829.

THE influence of the spinal marrow upon a state of health or of disease is abundantly testified by the many and disastrous ailments which follow its derangement. But the precise nature of this influence has not been determined with sufficient certainty, the full extent of its results has not been fairly measured, and a thousand symptoms are every day ascribed to nervous irritation, without affixing to this ascription any practical import, or giving to the derangement which it is employed to designate any precise habitation. If pains be felt in the parieties of the chest, or integuments of the shoulders they are ascribed to rheumatism; if seated in the head they are denominated "*sick-headache*;" if we be oppressed with ennui it is because we are *bilious*; if tortured with convulsions then we are *nervous*. Cramp is explained when it is called colic; tremors when we are said to be irritable. The nervous system sympathises with some gastric disturbance if we complain of *tic*, and a few unmeaning vocables, as *nervous*, *bilious* and *hysterical* are sufficient to supply us in all such affections with appropriate and abundant nomenclature.

But however unsatisfactory and ill-defined our knowledge of spinal maladies has hitherto been, the ganglionic system presents a subject of a still darker nature, the very origin of the sympathetic nerve was long unknown, if it be yet universally agreed upon; and its functions and diseases are still placed by many in the *terra incognita* of the map of human knowledge. One considers it the grand conductor by which a thousand sympathies are created and preserved; another asserts that its ganglia may be torn, or dissected out without the animal betraying any consciousness of injury; and some go so far as to deny that it is a

nerve at all. It was the opinion of Winslow that the sympathetic ganglia are reservoirs of nervous power;—of Johnstone, that they are the instruments by which the heart and intestines are endowed with involuntary agency;—of Bichat, that they are so many centres of organic life, *centres particulieres de la vie organique*, independent both of the brain and spinal marrow. These are only a meagre specimen of the many contradictory conjectures which have been hazarded upon the nature of a system, a part of which only Wrisberg called the *cerebrum abdominale*; and as to its pathology nothing was precisely known until within the last few years, when a more philosophical mode of studying such matters elicited more light, and when the valuable works of Soemmering, Scarpa, Philip, Hastings, and Lobstein enabled us to speak with more satisfaction upon the natural and morbid influence of the ganglionic system.

In the present little volume Mr. Teale has done much to rescue these interesting portions of the nervous system out of their obscurity; to give a precise meaning to terms which were as extensively employed as they were utterly unintelligible; to trace many wandering and anomalous symptoms to their proper source; to ascertain the character of that morbid cause on whose existence they depend; and to prescribe the treatment which is best adapted for their removal. By an attentive investigation of his subject he has certainly settled one most practical question—that disease of the spinal cord and sympathetic ganglia is often less strikingly evinced by symptoms exhibited in its immediate neighborhood, than by such as may be discovered in distant parts; and by linking the seat with the symptoms of disease, he has given a clue to their treatment as well as to their etiology, which we have good reason to believe will frequently lead to their alleviation, when it fails to reach their cure.

*Irritation of the Spinal Marrow.*—In vindication of his view that an irritable state of the spinal marrow frequently occasions neuralgic affections in distant parts, the author furnishes nothing which can be called incontrovertible evidence; but the presumption which he establishes in its favor must be considered strong, where it proves not satisfactory. The frequent coincidence of tenderness in the spinal column with these neuralgic symptoms, the relief or aggravation of these symptoms as this tenderness diminished or increased, the obvious influence which treatment directed to the spine exerted upon the immediate seat of neuralgic disease, and the well ascertained pathological fact that some of the most marked effects of disease of the brain and spinal cord are discoverable, neither in the substance or vicinity of the disease, but in organs at a

distance from the seat of action;—these are the leading considerations whereon the author rests his views, and it must be admitted that they are more than plausible. Dissection would certainly give more direct proof, but in the present stage of this inquiry it is not forthcoming, and until more extensive opportunities for investigation shall furnish autopsic light, we can only weigh with caution the evidence we possess and square our inferences with the extent of our information. If a person complain of darting pains in the intercostal spaces between the fourth and seventh ribs of the right side, if these spaces be tender under pressure, and if the intercostal muscles occupying them be occasionally affected with spasm, if a dull sense of heat and uneasiness be felt in the third and fourth dorsal vertebræ, if the pains of the chest appear to shoot from and to these vertebræ, and if on examining the spine this portion of it alone betray decided tenderness on pressure; if cupping, leeching, and blistering this portion of the spine be followed with marked alleviation of every symptom, and if with the removal of the spinal tenderness every indication of thoracic disturbance disappear, it is as certain as circumstantial evidence can make it, that there is some etiological relation between the tenderness of the spine and the pain in the chest, and that although we may not have the sanction of actual sight to fix the nature of this relationship, there can be as little practical as pathological hazard, in concluding that the seat of disease is principally, if not exclusively confined to the spinal column.

The same evidence which lights us to this conclusion will aid in discovering the nature of this disease. When the symptoms which attend it are compared with such as depend on acute inflammation of the spinal cord, they will be found to differ less in nature than degree. The introductory symptoms of both diseases are nearly, if not precisely, the same, the sensibility of the skin is not destroyed, but impaired, the muscles are not palsied, but seized with feebleness and tremors. In the absence of better proof from the author, we refer to some of Dr. Abercrombie's cases, as given in his valuable work upon diseases of the brain. In his CXIth case the patient complained of pain in different portions of the spine stretching round the abdomen, a very uneasy sense of tightness across the lower part of the chest, spasm of the abdominal and dorsal muscles, coldness and numbness along the sides of the chest, abdomen, and down the lower extremities, diminished power of motion and occasional hiccup. These symptoms gradually increasing the right arm became paralytic, his speech impaired, coma came on, and he died. Upon dissection the whole cord was found of a pale colour and in a

state of complete ramollissement, a part of the medulla oblongata, cerebellum and brain was similarly diseased.

The tenderness of the spine at that part which the nervous symptoms would indicate as the seat of mischief, is strongly corroborative of its inflammatory nature, and the treatment, which is found to remove it with the greatest certainty, being purely antiphlogistic, inculcates the same inference. As the inflammation is subacute and seated in organs of great delicacy, dissection itself might often fail to give much additional force to these circumstantial evidences; for as the author justly says:—

“Although the parts after death may not exhibit any traces of inflammation, we are not warranted in concluding that they have not recently been the seat of disease. When the conjunctiva has been intensely injected from inflammation, or the skin the seat of redness from erysipelas, how slight are the traces of inflammation after death! And if the conjunctiva and the skin may be intensely red from acute inflammation, and yet exhibit scarcely any traces of disease after death, it is more than probable that the spinal marrow should be equally destitute of the marks of disease. Indeed, it would even be a subject for surprise if any permanent changes in this structure had been effected, since the diseases in question are presumed only to consist in the lighter shades of inflammation, seldom attaining those violent degrees of intensity which are attended with obvious disorganization.” 68.

The symptoms produced will vary both in nature and extent with the portion of spine affected. If the upper cervical portion be diseased neuralgia of the scalp is not uncommon, and the direction of the pain is generally determined by the position of the nerve. Sometimes the pain is dull, frequently it is acute, or it may occur in paroxysms. Occasionally some stiffness of neck accompanies the other symptoms, the voice may lose its natural tones, or speaking may be attended with difficulty.

A healthy youth was attacked (on the 10th of August, 1829,) with giddiness and pain of occiput, which frequently darted across the crown to the forehead. This pain, although generally dull, was often acute; and a feeling of weariness was complained of about the shoulders. These symptoms assumed the form of paroxysms, which were most frequent in the morning and continued about two hours; they had been gradually increasing for several weeks, and they were accompanied with tenderness of the third and fourth cervical vertebræ. Leeches to be applied to the tender part of the spine. 14th. Pains return at the usual time, but in a very mitigated form, the vertigo is less and the patient is much better in every respect; blister to neck.—

18th. Vertigo and pain quite gone, and no tenderness of spine was now elicited on pressure.

It may be thought that had the leeches and blisters been applied in this case to the head, the relief might have proved as sudden and effectual. The following case will be a sufficient reply to this suspicion.

Mrs. B. a week after her confinement, complained very much in the afternoon with a dull aching pain in the occiput, which extended along the parietal bones to the temples, and transversely towards the cheeks along the lower jaw. She also complained of a violent pulsation and distressing sound in the head, which she compared to the "beating of hammers." These symptoms had somewhat annoyed her previously to her confinement, and leeches had been applied to the temples but with the effect of aggravating them during the two following days. On examining the spine very great tenderness of the two upper cervical vertebræ was detected, a circumstance that had been hitherto overlooked, leeches were applied, immediate relief was procured, and the paroxysms never afterwards returned.

When the inferior cervical division of the spinal marrow is the part diseased, pains are felt in the arms, shoulders and breasts. Sometimes they follow the course of the anterior thoracic branches of the brachial plexus, occasionally they are fixed in the neighbourhood of the shoulder-joint, and again they shoot along the cutaneous nerves. The mammæ not unfrequently become acutely sensible, and, if the affection have continued long, feel knotty and irregular; pricking, numbness and a sense of cold are often felt in the arms, the elbows are stiff, the muscles are affected with cramps and spasms, the wrists are weak, the hands tremble and the fingers are almost insensible to such objects as they may contain. Females of retired and sedentary habits are obnoxious to these neuralgic symptoms in the upper extremities, and their modes of life have been generally considered a sufficient explanation.

Mrs. B. aged 53, mother of a large family, had been much addicted to rheumatism for the greater part of her life, and on the 10th of December, 1827, made considerable complaint of a fixed pain in the neck and between the shoulders, of darting pains over the occiput, of aching pains over the entire arms, of prickling sensations of the hand and numbness of the fingers.—Abdominal muscles occasionally painful, lower extremities free, no fever, no cough, nor dyspnoea. Her disease, having been considered rheumatism, had been treated with the ordinary remedies but without much benefit, and finding that the two lower cervical and six superior vertebræ of the back betrayed tender-

ness when pressed, leeches were applied and a blister was ordered for the next evening. The irritation occasioned by the blister was very great, and while it continued the original symptoms were more severe; but as it subsided they gradually disappeared, and on the 29th of December she was not only free from pain, but felt a degree of muscular energy in her arms which she had not enjoyed for several years.

The sixth case will remind our readers of Sir A. Cooper's description of the irritable breast, and we cannot impress the importance of such cases upon them more forcibly than by observing, that not a few have been doomed in consequence of similar symptoms to severe and fatal operations, and that many are permitted to wither under the blighting suspicion that they are the victims of some malignant malady, which can only be appeased with the sacrifice of life. An unmarried lady, aged 30, consulted the author on the 28th of August, 1828, for a painful affection of the right breast, which had annoyed her for several years, particularly at the menstrual period, but which had increased within the last four weeks to a degree of alarming intensity. When examined it appeared enlarged and irregular, and the slightest touch produced acute suffering. "Sharp darting pains" often shot across the breast into the right arm, which was slightly tumefied and felt weak, a constant gnawing sensation in the shoulder, arm and breast was complained of, and when the tips of the fingers were suddenly touched pain darted up the arm to the neck and head, and down to the breast.—Pressure over the fourth cervical and three upper dorsal vertebræ gave great uneasiness. Excepting occasional dyspeptic fits and an habitual torpidity of bowels the general health was tolerably good; eight leeches to the tender vertebræ and a purgative of salts and senna. (12th.) Bowels well opened, pain easier; blister spine. (30th.) Irritation of blister has occasioned some fever, and produced a bad night, pain unchanged; an effervescing draught every four hours. (Sept. 3d.) Irritation from blister has subsided, breast less swollen and bears pressure without pain, arm can be moved with greater ease. (10th.) Pains have returned; blister spine. (17th.) Breast of natural size, pains gone, arm can be moved with considerable facility. (Aug. 26th. 1829.) Breast continues well, and with the exception of an occasional feeling of numbness and weakness in the right arm, she is quite well.

If the upper part of the dorsal spine be affected symptoms similar to those now described are produced, together with a fixed pain in some part of the intercostal muscles or pleurodynia; when the lower half is tender an oppressive sense of tightness across the epigastre, soreness along the costal cartilages,

or in the course of the diaphragm, and pains in the abdominal and lumbar muscles are the most distinguishing phenomena.

On the 1st of January, 1828, Mr. H. aged 40, who had been in an unhealthy state for several months, complained of a fixed pain in the intercostal spaces between the third and seventh ribs of the right side of the chest, which was increased by deep inspiration. Besides this fixed uneasiness there were acute pains which darted from the spine across the chest and towards the shoulders, and sometimes to the scalp. These pains recurred at short intervals through the day, and were less frequent in the night, tongue furred, appetite defective, occasional flatulence, frequent dry cough, considerable emaciation. Bowels regular, pulse natural. Having suffered for ten years from pain in the side he was considered to be labouring under phthisis; he had received much medical attention without improvement, and leeches and blisters had been applied in vain to the painful part. On examining the spine the third and fourth dorsal vertebræ betrayed very considerable tokens of morbid sensibility, and when the attention of the patient was drawn to this circumstance it occurred to him, that this part had often been the seat of uneasiness and unusual heat, and that the "darting pain in the chest appeared to strike to and from that part." From the first to the 25th of January dry cupping and leeching were twice employed, a blister was thrice and a sinapism once applied with decided relief; after the 25th a linament containing oil of turpentine kept the integuments covering the tender vertebræ in a state of irritation, an effervescing draught was occasionally given to allay thirst, some rhubarb to keep the bowels open and sulphate of quinine to improve appetite and restore strength; and upon the 30th of February he considered himself perfectly recovered. If the lumbar or sacral part of the spinal column be affected the scrotum and neighboring part often feel sore, the lower extremities are attacked with spasms, tremors and other morbid sensations, the knees totter and a sense of feebleness is complained of.

Mr. B. aged 20, complained of "pains across the body, weakness in the lower extremities, and soreness in the thighs" for the last three weeks. The abdominal pain is fixed, the soreness of the thighs descends along their interior over the knees to the broad surface of the tibiæ, his legs totter and he frequently feels a tendency to fall. Stomach in good health, and he seems free from any internal disease. In consequence of finding that the second and third lumbar vertebræ were tender, ten leeches were applied, and a dose of oil was given. Five days afterwards the soreness and weakness of thighs and legs were removed, and

the abdominal pain, which was much diminished, entirely disappeared on the application of a blister to the back.

An attentive perusal of the cases now extracted will enable the reader to form his own opinion as to the connexion between tenderness of the spine and such neuralgic symptoms. In some of them this connexion was obvious and easily traced by the character of the symptoms alone; in others it was strikingly presumptive from the nature and result of the treatment, and in all when the symptoms and treatment are viewed together, there can be little room for doubting that some morbid action within the spinal column was the principal source of every symptom. Mr. Teale calls this morbid action "irritation," and refers to the spinal marrow as its seat; but irritation is a vague and unmeaning epithet, which is better adapted to conceal ignorance than convey information, and the phenomena described in the above cases are indicative of inflammation. The acute and darting pains, the increase of heat, the occasional redness and even tumefaction, and the alleviation of all these symptoms by leeching, cupping, blistering and aperients, are strongly favorable to this opinion. In justice to the author, however, it must be noticed that while he has chosen to call this spinal disease *irritation* he affixes to the term, according to the French fashion the idea of *subacute inflammation*; declining to use any stronger phrase until dissection had cast more light upon its pathology.

"This irritation, or subacute inflammatory state of the spinal marrow is not necessarily connected with any deformity of the spine, or disease in the vertebræ. It may co-exist with these as well as with any other diseases, but it so repeatedly occurs without them, that they cannot be regarded as dependant upon each other. Where, however, inflammation and ulceration of the vertebræ or intervertebral cartilages exist, it is probable they may predispose to, and, in some instances, act as an exciting cause of an inflammatory state of the nervous structures which they contain; for we not unfrequently find inflammatory affections of the vertebræ in conjunction with symptoms of irritation of the spinal marrow. But these two affections, although co-existing, bear no regular relation to each other; and during the progress of the vertebral disease, the affection of the nervous structures is subject to great changes and fluctuations.—The local remedies employed for arresting the disease in the bones, often alleviate the affection of the spinal marrow at the very commencement of the treatment, long before the vertebral disease is suspended; but as the neighbouring inflammation in the bones appears to predispose or excite the nervous mass which they contain, to disease, relapses of the nervous affections are repeatedly occurring during the whole course of the complaint.

"The affections of the spine, termed lateral curvature and ex-curved, appear to have no necessary connexion with the disease which I have been describing; and the proportion of cases in which they are found united, is so small, that lateral curvature can scarcely be considered even as predisposing to this disease. The most extreme degrees of deformity frequently are observed without any affection of the nerves; and when lateral curvature does occasionally co-exist, local antiphlogistic treatment will often speedily remove the nervous symptoms, whilst the curvature remains unrelieved.—Hence there is an impropriety in considering these nervous symptoms as a result of the deformity, and in explaining them upon the mechanical principle of pressure and stretching, to which the nerves are supposed to be subjected as they issue from the intervertebral foramina. If the pressure and stretching produced by the curvature were the cause of the nervous symptoms, they ought to continue as long as the deformity remains.

"Symptoms of affection of the brain frequently occur in conjunction with these diseases of the spinal marrow. These however must be regarded as the result of extension of disease from one part to the other, most probably through the medium of the membranes. I shall however, purposely avoid touching upon these subjects, as it would be foreign to my present purpose to enter upon the discussion of cerebral neuralgiæ.

"*Treatment.*—When the different neuralgic symptoms which have been enumerated, can be traced to this morbid state of some portion of the spinal marrow, the treatment that ought to be pursued, is readily decided upon. Local depletion by leeches or cupping, and counter irritation by blisters to the affected portion of the spine, are the principal remedies. A great number of cases will frequently yield to the single application of any of these means. Some cases, which have even existed several months, I have seen perfectly relieved by the single application of a blister to the spine, although the local pains have been ineffectually treated by a variety of remedies, for a great length of time. A repetition of the local depletion and blistering is however often necessary after the lapse of a few days, and sometimes is required at intervals for a considerable length of time. In a few very obstinate cases issues or setons have been thought necessary; and where the disease has been very unyielding, a mild mercurial course has appeared beneficial.

"It is of course necessary that proper attention be paid to the regular functions of the bowels, and to the treatment, by appropriate means, of any other affection which may co-exist. It is needless, in this form of disease, to offer any directions respecting diet, as the judgment of every medical man will enable him to decide best on the general management of the case immediately under his notice.

"When my attention was first directed to this subject, I considered recumbency a necessary part of the treatment; it is for a moderate length of time, undoubtedly beneficial, and frequently very much accelerates recovery; but subsequent observation has convinced

me that it is by no means essential. I have seen several instances of the most severe forms of these complaints, occurring in the poorer classes of society, where continued recumbency was impracticable, which have, nevertheless, yielded without difficulty to the other means of the treatment, whilst the individuals were pursuing their laborious avocations.

"These observations, however, are not intended to apply to those cases in which there is actual disease of the vertebræ.

"When there exists a tendency to relapse, I have thought it advantageous to continue the use of some stimulating liniment to the spine for a few weeks after the other means of treatment have been discontinued. A liniment, consisting of one part spirit of turpentine, and two of olive oil, is what has generally been employed." 21.

*Irritation of the Sympathetic Ganglia.*—In the diseases which have been described the source of mischief lay in the spinal cord, and the effects of this mischief were extended to distant organs through the interposition of the spinal nerves; but those, upon which we are now entering, are said to originate in another source, and in place of arising from the spinal marrow are supposed to depend upon derangement of the ganglia of the sympathetic nerve. Upon first casting our eye upon the title page of this work, and seeing by it that the writer proposed to describe and treat diseases depending on the spinal marrow, and communicated by the cerebro-spinal nerves, apart from such as arose from the sympathetic ganglia, and were communicated by the nervous filaments derived from them, we admit that the proposal appeared to us little better than a vain refinement; but upon more mature deliberation we believe that the distinction herein established has a natural foundation. While this is granted, however, it must be evident that any distinction based upon such a difference must be purely nosological, and that it can have no influence upon the selection, or employment of our remedial plan.

"As the disease may be confined to one part of the spinal marrow, or may exist simultaneously in different portions, or may even pervade its whole extent, so the affection of the ganglia may be confined to one of these nervous masses, may exist in several which are contiguous, or in ganglia remote from each other; and, as there is reason to believe, the whole chain may occasionally be affected.

"The disease of the ganglia is seldom found, except in conjunction with that of the corresponding portion of the spinal marrow whereas the spinal marrow is often affected without the neighboring ganglia being under the influence of disease. Thus we frequently find symptoms of disease in a portion of the spinal marrow without

any evidence of its existence in the corresponding ganglia, frequently the symptoms of both combined, and occasionally, but rarely, symptoms referable to the ganglia, without the spinal marrow being implicated." 39.

The principal symptoms of an irritated state of the sympathetic ganglia are palpitations of the heart, asthmatic breathing, spasm of the stomach, neuralgic pains of the thoracic and abdominal viscera, and diseased secretions of the stomach, liver and kidneys. Leucorrhœa is often attendant on these affections, but whether it be a coincidence or consequence the author finds it difficult to explain. Pyrosis he considers a neuralgic disease, and he is inclined to suspect that some forms of diabetes may partake of the same character.

The facts and arguments which were formerly employed to show that the disease of the spinal cord, which gives rise to neuralgia, was inflammatory, we now refer to as illustrative of the same point in the case of the sympathetic ganglia. Among two or three other cases Lobstein gives the history of a boy only ten years old, who died with symptoms of anxiety, oppression in the chest, and rattling at the pit of the stomach, in consequence of a repelled eruption, and in whom the trunk of the sympathetic nerve, the ninth and tenth thoracic ganglia, and two of the anastomosing branches were found upon dissection *profunde inflammata*. He has also seen the sympathetic destroyed *per ulcera et cariem*, but does not give the symptoms which occurred during life, and hypochondria, hysteria, melancholia, colica pictonum, angina pectoris febris intermittens are only a tythe of the diseases which he describes as depending upon its derangement. Any of the sympathetic ganglia may be affected, but the middle and lower thoracic ganglia are those which are most frequently disordered, and the ganglia of the neck are affected next in frequency. As the stomach is chiefly supplied by the former and the heart by the latter, these organs, it may be supposed, should be the first affected; and hence do we find that the symptoms above enumerated are generally referrible to these viscera. So far, therefore, do the symptoms illustrate the parts affected; but the stomach is not exclusively supplied by the sympathetic filaments of the thoracic ganglia, nor is the nervous energy of the heart limited to those of the neck. These organs derive nervous power from the cerebro-spinal system by means of the pneumogastric nerve, and from the sympathetic system through filaments sent off from the ganglia, and the question naturally arises, may not both of these sources of nervous influence be tainted, and may not their taint conjointly produce that

disordered state of the stomach, heart, and lungs which we have just described?

"The prosecution of this part of the subject will be best facilitated by investigating the following queries:

"1. Is the muscular action of the heart, arteries, stomach and intestines dependent upon the cerebro-spinal or upon the sympathetic system?

"2. Are painful affections of the heart, lungs, stomach and intestines seated in the filaments of the pneumo-gastric or of the sympathetic nerves?

"3. Is the pneumo-gastric nerve the *only* nervous agent in digestion, or do the nerves of the sympathetic system exert any considerable influence in the digestive process?" 57.

The first of these questions few enlightened physiologists of the present day can find much difficulty in solving. The well known and frequently recorded fact, that full grown foetuses have been born without either brain, or spinal marrow, and the experiments of Le Gallois, Clift, and W. Philip, in which the whole spinal marrow and brain were destroyed without affecting in any very appreciable degree the action of the stomach and intestines, or even of the heart so long as respiration was continued, are quite conclusive as to the immediate independence, at least, of the muscular agency of the heart and stomach upon the cerebro-spinal system; and the objections which have been drawn against this view from the influence of mental emotion and from the changes wrought upon the pulse by the application of stimulants and sedatives to the brain and spinal marrow, must be regarded after the experiments above alluded to of very inferior weight.

But the two remaining queries are more difficult of solution, and very distinguished writers may be found the advocates of both sides. Desportes believed that painful affections in the heart and lungs depended on the pneumo-gastric nerve; Mr. Broughton asserted that this nerve was insensible, and Laennec imagined that the filaments of the sympathetic, as well as those of the pneumo-gastric, might be obnoxious to disease and might indiscriminately constitute the seat of pain. The portio dura of the seventh pair, the author observes, is very strikingly like the pneumo-gastric nerve in several important particulars. They arise by a single set of fibrils from a distinct part of the spinal marrow, in contradistinction to the fifth pair and the spinal nerves which communicate sensibility; in many animals they are connected towards their origin; in birds they arise together, and in fishes the substitute for the portio dura is a branch of the eighth pair. These anatomical features of resemblance create a proba-

bility that the functions of these nerves are very much alike, and as the experiments of Mr. Bell have clearly ascertained that the portio dura may be touched, stimulated and even cut without pain, Mr. Teale presumes that the pneumo-gastric nerve is equally insensible, and that, therefore, it cannot be the seat of pain. The following experiments of Mr. Broughton, upon the par vagum of a horse, abundantly confirm the justice of this presumption.

"The par vagum was exposed in the neck on one side, and insulated from its cellular connexions, but carefully retained in its place. It was repeatedly transfixed with a pin, pinched and slowly cut through with scissors, add not the slightest degree of sensation was manifested. When pulled out from its natural position, or squeezed by the forceps, the animal appeared to wheeze as in obstructed respiration, but exhibited nothing like the twitches and startings which peculiarly mark the productions of pain in irritating sensible nerves." 62.

The well known experiments of Drs. Philip and Hastings have demonstrated the importance of the eighth pair of nerves in the function of digestion; but Le Gallois, from similar experiments, concluded that digestion is not invariably suspended by their division: Magendie and others have shown that, after these nerves are cut above the cardiac orifice of the stomach, digestion still proceeded, and it is not to be denied that many animals, which are destitute of the eighth pair, can digest the coarsest nutriment with perfect ease. These circumstances prove that, although the par vagum is materially concerned in the digestive function, yet digestion can proceed without them, and since the sympathetic is the only other source of nervous supply this nerve must have some community of office with the eight pair. Besides, it has been shown, while considering the first question, that the muscular action of the stomach is dependent upon the sympathetic, and if this muscular action become deranged in consequence of disease in this nerve, the food cannot be removed by the action of the stomach as it is digested, and dyspeptic symptoms will result as certainly as if the gastric secretions had been disordered, or deficient. It even appears probably to the author that the secretions themselves occasionally become diseased when the sympathetic is affected, because in cases attended with tenderness of the spine in the neighborhood of the splanchnic ganglia, and in which there was no reason to suspect disease at the origin of the par vagum; he has seen large quantities of air and acid fluid secreted by the stomach; and in this view he is strongly supported by Lobstein.

"I will briefly recapitulate the inferences which appear deducible from the preceding observations.

"That painful affections of the nerves of the heart, lungs and stomach, are not seated in the filaments of the pneumo-gastric nerve, since this nerve is not a nerve of sensation, and therefore cannot be the seat of pain; consequently that they must be seated in the filaments of the sympathetic.

"That the action of the blood-vessels and muscular viscera is dependent upon the sympathetic, and consequently that irregularities in the action of these involuntary muscles may with much greater probability be referred to disease in the sympathetic than in the cerebro-spinal system.

"That as digestion has been observed to take place in some instances after the division of the eighth pair, and that it proceeds in animals which have not this nerve distributed to the stomach, it is evident that some other system of nerves (the sympathetic) exerts a considerable influence in digestion, and consequently that disease in the sympathetic may disorder or interrupt the digestive process.

"I must now refer to the pathological principle with which I commenced; namely, that disease of the nervous masses is not so much evinced by symptoms in the immediate seat of disease, as by phenomena exhibited in those remote parts to which the nerves arising from the diseased portion are distributed. Upon this principle those nervous diseases of the heart, lungs, and stomach, which have been shewn to be more probably dependent upon the sympathetic than upon the cerebro-spinal system of nerves, *should not be regarded as diseases of the particular filaments distributed to these organs, but as diseases of the ganglia or masses from which the filaments are derived.*

"The probability that these diseases depend upon an affection of particular ganglia is still further corroborated by the fact that tenderness may generally be detected in that part of the spine which is contiguous to the particular ganglia. Thus, when the heart is affected, there is tenderness in the cervical vertebræ; when the stomach is affected, the tenderness is seated in the middle or lower dorsal portion of the spine. The result of treatment directed to these parts may be still further adduced in corroboration." 65.

(TO BE CONTINUED.)

## Abstract of Foreign Medicine.

### PRACTICE OF PHYSICK.

*Dr. A. G. Testa, on the Diseases of the Heart.*—(In number 5, we gave a brief analysis of a considerable portion of this work, designing to complete it in our next—but it has been inconvenient to do so till now.) The morbid alterations next described are polypi, sarcomæ, ossifications, petrifications, &c. We have already given our author's opinion in regard to the formation of polypi. A vivid description is given of the symptoms which constitute the disease termed *angina pectoris*, and which arise from some of the organic changes which we have just named. These changes frequently are—ossified spots in different parts of the heart—the tendonous chords—the valves—the aorta, together with little excrescences; but still more frequently, organic changes of the coronary vessels. Sometimes granulations cover the heart—sometimes there is gas in the pericardium—blood, mostly very fluid and black, the heart sometimes distended with it, and sometimes empty. Often, however, the pathology of this disease is inexplicable, no organic lesion being discoverable. A very interesting case is related in which the heart was found, (after accidental death by a blow on the head,) enlarged to double its natural size, and every where, except at the apex, covered with a stony crust, in some places as thick as the finger. The individual had never complained of any symptom of disease. The author does not think, as do many others, that angina is caused by the enlargement and ascension of the liver, spleen, &c., pushing the diaphragm upward, and displacing the heart. Dropsy, he says, does not cause it. He does not regard fatty accumulation about the heart as a cause of angina, but thinks that it is often an effect of it.

The author next proceeds to speak of aneurisms of the heart—one variety of enlargement of the organ being a mere dilation of the organ, with attenuation of its walls; and another, an enlargement of the cavities, together with increased thickness of its walls. The left side of the heart is more apt to have its density increased than the right. Pulsation of the jugular vein is spoken of as a symptom of dilatation of the right side of the heart—doubtful—. The author speaks of gangrene of the extremities, as sometimes associated with, and indicative of, disease of the heart. The following are the series of inquiries on which the diagnosis of disease of the heart ought to be established. 1. In regard to the asymmetrical form of the person—rickets—malformation of thorax &c. 2. Hereditary predisposition. 3. Diseases of the skin—catarrhal affections.—4. Hæmorrhagic habit. 5. Hysterical affections—hypochondria—syncope—sudden disturbances of the brain—sense of vapours rising to the head—palpitations. The following are corroborating circumstances—œdema of the extremities—weight in the scrobiculus cordis—flying pains in arms, shoulders, legs, and feet—peculiar, pale, and puffy countenance, with complexion between blue and violet.

A chapter is devoted to the subject of gangrene and rupture of the heart. Rupture, he regards as the result of inflammation and ulceration. A case is related of a wound of the heart, in which the patient survived the accident nine days. The pulse is regarded by Testa as a very fallible index of the condition of the heart. He says that the pulse of the left side is more to be relied upon than that of the right.

*Dr. W. England, on Calculous Complaints.*—Dr. E. resides in the county of Norfolk, England, and has investigated the causes of the very frequent occurrence of calculous complaints in that region. Dr. E. does not believe that the formation of urinary calculi can be explained upon chemical principles. He believes that these formations are connected with, or dependent on, disorder of the digestive function, producing diseased secretion of the kidneys. Dr. E. avers that the cause of the more frequent occurrence of calculous disorders in Norfolk, than other parts of England, is to be looked for in the modes of living which prevail there. Dr. E. informs us that the working class, in that region, subsist almost entirely on farinaceous food, in the form of bread, fresh from the oven, when it is most unmanageable by the stomach. This forms their breakfast and dinner, and is washed down with tea, or water—milk being scarce. They have also a very injurious custom of feasting, at supper, on what is called the Norfolk dumpling, a culinary preparation little known elsewhere. It is made merely by adding yeast to flour, making a paste, and then boiling it for twenty minutes. The drink of the people of Norfolk is water, or bad beer. Dr. E. thinks that nothing can be more pernicious to the chylipoietic apparatus than this mode of living. He also remarks that the peculiar kinds of labour, in which these people are exercised, is also a predisposing cause. They are much employed in the labour of threshing, which throws undue action upon the lumbar muscles, and inflicts irritation upon the organs in their vicinity. Some degree of influence he also ascribes to climate.

*Delirium Tremens.* The Glasgow Journal, No. 9, reports some interesting facts in relation to Delirium Tremens, as it is treated in the G. Infirmary. They are not new, but are valuable as corroborating the doctrine which we believe to be correct. Dissections in the G. Infirmary have shown the existence of a small quantity of serum in the ventricles, and at the base of the brain—no effusion beneath the membranes—pia-mater injected with blood—substance of brain presenting numerous bloody points when cut—firm and very vascular.

Mr. Weir observes, that D. T. usually continues from eight to ten days, though *sometimes chronic*—not often fatal. He strongly advocates the use of opium as the most important agent in its treatment. It must be given, he says, in full and repeated doses, till sleep is procured, when danger is at an end. The chief point, indeed, is to procure sleep—sometimes 20 grs. are necessary in the twenty-four hours; (we have given 30.) The post mortem appearances just named, and other signs of cerebral excitement, have caused many practitioners to regard the disease as inflammatory, and to treat it with blood-letting and other evacuants. The lancet, he says, is never admissible, unless in robust subjects, in whom the habit of intemperance is recent. Dr. W. does not profess to explain the *modus operandi* of opium with precision, but relies on experience, which abundantly proves its very general efficacy.

The treatment of no disease is reduced to greater simplicity or precision than that of D. T. For a just appreciation of the value of opium, in relation to it, the world is indebted to Dr. Coates of Philadelphia, whose very valuable papers on this subject are published in the North American Medical Journal.

The French surgeons profess to have ascertained that, in traumatic D. T. the most effectual mode of using tinct. opii. is by injection.

*Articles cured by the External Application of Digitalis.* It is stated in the French Journals, that M. Raisin has relieved two cases of dropsy, by frictions with the tinctures of digitalis and squills. In one case, quartan fever and gastritis co-existed—the other resulted from abdominal inflammation. The irritability of the stomach and bowels forbade the use of the ordinary internal remedies which excite the urinary organs and absorbents. The external application of these remedies produced an abundant flow of urine, and their continuance for two or three months completed the cure. The fresh leaves of digitalis, bruised, have been applied to the thighs and belly with the same effect.

*Commentaries on the use of Lavements.—By Mr. G. Scott.* Such is the title of a little work which has recently appeared in England. It is useful as directing attention to a remedial agent which is held in too great contempt, especially in this country. Dr. Scott gives some very useful practical hints in regard to the mode of supplying these agents. 1. When enemata are employed merely for the purpose of obviating costiveness, by softening and breaking down accumulated feces, and by gently distending the intestines—a table-spoonful of soft soap, in a pint of water, may be used—or gruel—or linseed tea. 2. The temperature should be a very little above the temperature of the body, that it may create as little sensation as possible when administered. 3. The quantity should never be less than a pint, sometimes much more, that it may pervade the whole colon—sometimes even pass the valve. 4. The best time for their exhibition is in the morning, after breakfast. They should be thrown in slowly, and be retained as long as possible. 5. The bladder should be emptied before its exhibition, as that organ, when full, obstructs the operation.

When the simple injection fails, various aperient substances may be added to the common simple injection.—But besides their utility in evacuating the bowels; in febrile affections—in gastro-enteric irritation—in colitis, whether with diarrhoea or dysentery, they are valuable remedies. Where irritation alone exists, cool water will soothe the organs—in other cases mucilaginous liquids—milk and water &c., are used. By enemata, also, we are enabled to employ important remedial agents which cannot be endured by the mouth.

Astringents may often be used with great advantage in the form of enemata. They are often thus necessary in the latter stages of dysentery, and in diarrhoea. We have seen them of eminent service in certain protracted, fevers, in which the strength of the patient is gradually wasted by a colliquative diarrhoea, that cannot be restrained by medicines taken into the stomach. We have distinctly in our recollection a case of gastro-enteric fever, in which the patient seemed rapidly sinking with a kind of chronic cholera.—Opium and astringents, by the mouth, seemed rather to aggravate the difficulty. We directed copious enemata of the decoction of oak bark. Their beneficial effect was immediate and surprising. Tone was given by them, not only to the colon and rectum, but by sympathy to the whole alimentary canal. When they were omitted, the intestinal exhalation immediately recurred, and on their repeated use, it was again promptly subdued. We have used them also with great benefit in those cases of colliquative diarrhoea which supervene upon the effects of injuries and surgical operations, with long-continued purulent discharges. Although this kind of looseness is symptomatic, yet it re-acts powerfully to aggravate the disease. I have known astringent enemata to exercise the most happy influence in such cases, and apparently to rescue the patient from a most perilous situation.

*Nitrate of Potash in Scurvy.* The last number of the Medico-Chirurgical Review contains a report by Mr. Cameron, a naval surgeon, in favour of the use of this agent. He found it eminently serviceable in the treatment of cases which occurred on board the ship Ferguson, on her passage from Ireland to New South Wales. The most distressing symptoms were promptly relieved by it. Eight ounces of nitre were dissolved in as much vinegar as would make the solution amount to sixty-four ounces. Sometimes equal parts of vinegar and lime-juice were used. Sugar and a little of the oil of peppermint rendered it more palatable and grateful to the stomach.—Dose seldom more than an ounce, repeated from three to eight times during the day.

*Intermittent Ophthalmia.* Two cases of this affection are related in Johnson's Journal. In one, the patient would wake after being some hours in bed, with a violent pain in the eye, with redness, tears, and a sense of the eye bursting—also a distressing feeling of sand in the eye. These symptoms would continue during the succeeding day, till toward evening—then ceasing and leaving the eye in a state of epiphora—on the 3d day, well, though sometimes a little irritability continuing. The attacks occurred once in eight days. At length he suffered an injury in one of his eyes, and underwent the ordinary depletion, for the cure of traumatic inflammation. But the intermittent disease recurred as usual, and did not yield till those means were employed which are applicable to intermittents.

The other case was similar,—had been treated for some time by depletory measures, but with injury. On its intermittent character being adverted to, it was treated with the arterial solution and quinia, with immediate success.

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## SURGERY.

*Treatment of Cancer by Compression.*—By M. Recamier. Our readers will recollect that, some years ago, Mr. Young introduced, in England, the treatment of cancer by compression. After trial in the Middlesex Hospital, it was rejected. Recamier, who has written two volumes on the subject, insists that the trial was not fairly made. M. R. is good authority, and his reports should not pass unheeded. He treated forty-five cases—thirty by compression alone—four by compression and cauterization—five by compression and ablation—six by a combination of these means. Of these forty-five cases, twenty were cured—fifteen remain under treatment, and a few of them promise success—ten have entirely failed. The greater number of these cases occurred in females between the ages of forty and fifty. Eleven of the cases were relapses after amputations.

The successful employment of pressure depends on the nice adjustment of the bandage, and this requires nice tact on the part of the surgeon. M. R. has used various substances for making pressure—such as cotton, chamois, bladders of air, India-rubber, &c. &c., but he has found nothing so useful as agaric, cut in smooth layers, and nicely applied by a bandage without seams or selvage, nine yards long. He places a disc of agaric on each breast, and then several additional layers on the one affected with schirrus, locating them so that the centre of pressure may fall on the most prominent part of the tumour. He cauterizes with nitric acid, to each ounce of which he adds a drachm of the crystallized nitrate of quicksilver. The pain is relieved by laudanum to the part, and by the acetate of opium internally.

M. R. thinks that relapses less frequently occur when cauterization has preceded the knife. This is opposed to the opinions of surgeons generally.—It is the production of an issue, probably, which is beneficial, and, as it appears to us, should suggest the use of issues after operations, to prevent relapses.

*Loose Cartilages in the knee joint.* In the Glasgow Journal No. 8, Mr. Cowan relates a case of the excision of these substances. They were fixed on the inner side of the joint, and the skin being drawn outward the integuments and capsule were divided, and two of these substances easily extracted. A splint was used to prevent motion. No unpleasant effects followed. Mr. C. believes that far too much dread has been entertained of this operation. He thinks that the mischief which follows wounds of the joints, is generally attributable to the motion which occurs, and the irritation which results. He believes that these operations may be safely performed, if care be taken to keep the member perfectly at rest.

These substances, Mr. C. regards as formed originally of lymph, exhaled from the synovial membrane. They first become cartilaginous, and then bony.

*Irritable Breast.* Cases of this affection are related by Mr. Cowan in No. 8, of the Glasgow Journal. Since Sir Astley Cooper has directed the attention of the profession to the diagnosis of these affections, it cannot be doubted that the irritable breast has heretofore often been confounded with other affections—perhaps often with schirrus. *Case*—A young woman, of stammering habit, had an irritable tumour in each breast—menses irregular—breasts most painful at their recurrence. Leeches had been applied with no benefit. Mr. Cowan did nothing to the breast, but apply a plaster composed of soap-cerate and extr. belladonna. Attention was chiefly directed to the improvement of the constitution. Plummer's pills were first employed, and then the mist. ferri comp. and other tonics. Some amendment took place, and she was sent to the sea-coast. Mr. C. thinks, that in these cases, leeches are mischievous as increasing the irritability of the system. He remarks that the disease generally abates as the patient advances in life, as the constitution improves, and as the menses become more regular.

Our object should be, therefore, to bring about this improvement by means of alterations, cathartics, tonics, exercise, wholesome air, nourishing and digestible food, and above all by quieting the anxiety of mind which we shall almost always find to harass the patient exceedingly in these affections. We should endeavour that her fears may be quieted, and that her attention may be as much diverted from the local disease as possible. We have no doubt that the intense anxiety with which the mind of the patient is bent to an affection of this kind, is capable of concentrating nervous influence upon the part, and greatly aggravating irritation. Perhaps a mind thus diseased may even be capable of primarily creating morbid sensations in a part to which it may happen to be directed. We have at present under our own care a case of irritable breast, very similar to that described by Mr. C. The tumour is very small, and not very hard, but it is the seat of extreme morbid sensibility. The patient, a young woman of 18, cannot endure the slightest touch upon the part without suffering very keen pains, which not only shoot through the breast, but also the right side of the chest, shoulder, and arms. Her menses are irregular and scanty, and have always been so since her first period. Her countenance is sallow, her tongue coated, her appetite capricious, her bowels constipated unless when cathartics are used. We are at present giving alterative cathartics, and applying anodynes to the part.

*Cæsarian Operation on a Patient dead from Hæmoptysis.* We condense an account of such an operation from the Medico-Chirurgical Review, which

quotes it from the *Journal Hebdomadaire*, No. 59. The patient was suddenly seized with a frightful hæmoptysis, and died in four minutes, blood gushing from the mouth and nostrils. When M. Huguier, house-surgeon of the Hospital Saint Louis, arrived, life was quite extinct. An incision was made into the linea alba, and deepened through the walls of the uterus—the feet of the child were sought for, (the membranes being ruptured,) and it was immediately delivered. It was pale and motionless, and the heart beat feebly. The cord was tied before it was cut. All the means usually employed for re-animating the still-born were put in requisition, and with final success.—Thirty days after the delivery, little Posthumus was doing well.

*Treatment of Ulcers of the leg by Blisters.* Mr. Syme, in the *Edinburgh Medical and Surgical Journal*, proposes a new method of treating ulcers.—He tells us that having seen ulcers of a very obstinate character heal up at once without any attention, so soon as the limb began to recover from an attack of phlegmonous erysipelas, which it has happened to suffer, he was led to try the effect of inducing a similar inflammation artificially. For this purpose he employed blisters, which were made to cover not only the sore, but a great part of the limb, and were allowed to remain on for a long time. The first effect was a more than ordinary inflammation and discharge, the surface continuing to suppurate for some time. In a day or two the œdematous swelling began to subside, and soon disappeared, and in consequence, there was a great diminution of the size of the ulcer, which then came to be on a level with the skin. The sore then granulated in a healthy manner, and healed. M. S. used simple ointment for a few days after the application of the blister, and subsequently a lotion of acetate of lead, or sulphate of zinc. Should the ulcer prove obstinate, Mr. S. recommends to repeat the blister; and should a small portion manifest great reluctance to heal, it ought to be filled with the red oxide of mercury, or a mixture of this powder with flour. Of this he speaks emphatically. It will form a crust on the sore, and then must not be disturbed.

Mr. S. accounts for the good effects of blisters, on the supposition that they remove the œdema of the limb, which is so unfavourable to the healing process, by stimulating the absorbents. In this way he thinks their ultimate effects are the same as those of the bandage, adhesive straps, &c. which obviate the swelling of the limb.

We would suggest, that if blisters are thus beneficial, it is in part owing, undoubtedly, to the new and intense excitement which they produce in the part, subverting the previous morbid action. In this way they produce the same effect that the nitrate of silver, caustic potash, &c. &c., do.

*Circumscribed Aneurism from venesection cured by tying the Artery above the Tumour.* Such an operation, as we learn from Johnson's *Journal*, No. 24, has recently been performed with success, by M. Roux, in the Hospital of La Charité. The tumour had existed about a month—was an inch long—rounded—situated just above the fold of the arm, on the inside of the tendon of the biceps—skin not changed. It pulsated visibly, and with a whizzing sensation. On pressing the artery above, the size of the tumour was diminished. There was no varicose vein. September 12, 1829, M. Roux cut for the artery near the middle of the arm, in the usual way. The fascia, and cellular sheath of the artery and medium nerve being divided, the operator first raised, by mistake, on his director, the nerve. The tumour still beating violently, and the patient feeling great pain, the error was discovered, the nerve dropped, and the artery, which was found deeper, raised and secured. We are not a little surprised to observe that the operator practised Scarpa's method of tying the artery, with a cylinder of sparandrap included in the ligature, to compress the organ, and that he dressed the wound with lint from the bottom. The pulsation of the tumour ceased. The arm was enveloped in warm rags.

*Employment of the Suture for Vesico-Vaginal Fistula.* We condense from the Med. Chir. Rev. an account of the employment of this expedient in one of the Italian Hospitals. Dr. Malagodi was the operator. The fistula was large enough to admit the finger into the bladder. The patient was placed in the position usual in lithotomy. The operator introduced the right fore-finger, and hooking it in the fistula, dragged it down to the orifice of the vagina. The callous edge on the left side was then pared away with a straight bistoury, held in the left hand. The left fore-finger was then introduced—the fistula drawn down, and the callous border on the right side removed, with the bistoury in the right hand. In applying the sutures, the operator used three small curved needles, armed with ligatures, and fitted to a handle which might be removed at pleasure. The parts being again drawn down, a needle was carried from behind forward, through the vesico-reginal wall, near the posterior angle of the wound. The other needles were then passed in the same manner, at equi-distant points. The ligatures were then tied, and the lips of the wound thus brought in accurate contact. The patient was placed on her back in bed, and a catheter introduced to constantly draw off the water. Unfortunately, the anterior ligature at length cut through, and on the third day urine passed the fistula. The opening, however, was much diminished by the other two. Cauterization had been employed with no good effect before the operation, but it occurred to the surgeon, that now, the opening being smaller and the border more excitable, it might be effectual. It was tried and perfectly succeeded, the patient being dismissed well.

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## INTELLIGENCE.

It is with great pleasure that we announce the election of Dr. Benjamin Lincoln, of Boston, to the chair of Anatomy in the University of Maryland. We are confident that a more judicious selection could not have been made in our country. Dr. Lincoln was the friend of our lamented Wells, and, during his illness, was chosen by him to complete his course of lectures at Brunswick. It was no small undertaking to lecture to a class which had listened to Wells; but Dr. Lincoln's course was received with great and universal approbation. He has now given several courses on Anatomy and Surgery, and we know that, as a teacher, he has, from the first, been eminently successful and greatly admired.

THE  
Baltimore Monthly Journal  
OF  
MEDICINE AND SURGERY.

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VOL. I.

October, 1830.

No. IX.

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Original Essay.

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ART. I.—*Description of an Apparatus for the Treatment of Fractures of the Thigh and Leg.* By N. R. Smith, M. D.

(CONCLUDED FROM PAGE 317, NO. VIII.)

3. THE next circumstance necessary to the secure position of a fractured thigh, is the accurate support of both the leg and foot in such a manner that they shall not operate as levers to throw the lower fragment out of its proper relation to the other.—The weight of the leg operates with great power on the inferior fragment of the broken femur, and it is mathematically demonstrable that no force which can be applied to the sides of the thigh itself, can act with sufficient power, through the medium of the muscles, on the fractured extremities, to antagonise in any degree the tendency to displacement. The leg, therefore, must be carefully sustained, not merely by cushions and bolsters, for these are perpetually undergoing displacement, but by something which shall give uniform, unyielding, and yet easy support. That it may preserve the leg in a proper attitude in relation to the thigh, it must be securely fixed to the thigh-piece. The weight of the foot, when that organ is unsupported, tends to

rotate the leg and thigh outward, or inward,—the more so when the weight of the bed-clothes is added to it. This force is not great, but the constant operation of it, if not obviated, is certain at length to produce this result. Now the support of the leg and foot, by the apparatus here described, appears to me to be perfect. The firmness of the leg-splint, and the immobility of it on the thigh-piece, when the angle is fixed, render it impossible that it should drag upon the lower fragment of the femur. The foot is sustained with equal effect by the very simple turns which are made with the bandage round it, and round the extremity of the apparatus.

4. It is equally important that every apparatus for fractures of the thigh should be secured to some part of the body, that, if the body moves in any degree, and it is impossible that it should not, the whole apparatus may move in correspondence with it, otherwise, when the body moves, it will drag with it the upper fragment of the femur, leaving the other fragment and the leg, attached to the splint, in its former position. But if the splint is secured to the body, then, whatever movements of the latter may take place, the limb maintains the same relations, and the fracture is undisturbed. From this, too, it must be obvious that a light splint, neatly adapted and which readily accompanies the slight involuntary movements of the body, is far preferable to a cumbrous apparatus, which is so fixed to the bed, and so heavy, that it cannot move. Hence also the two-fold objection to the apparatus of Mr. Charles Bell, as it is commonly employed in this country.

The apparatus which I recommend is firmly secured by the hip-piece to the side of the body, so that when the latter changes its place, the splint moves in correspondence with it. Its lightness, also, and its convexity, where it rests upon the bed, are circumstances which conduce to the same result. But when I wish to make it even more perfect in this respect, I sling up the lower part of the splint, so that it may not touch the bed. Then, if the patient slides down in the bed a little, instead of crowding one fragment down upon the other, the

whole splint and limb will instantly move in correspondence, nor meet with the slightest resistance; and so in all other movements.

5. Another excellence belonging exclusively, I believe, to this apparatus, is the complete security of the limb, when reposing in the hollow of the splint, even though no bandage be applied, except to bind the hip-piece to the side of the body.—The bandage is only necessary for the purpose of sustaining the foot and giving firmness and strength to the apparatus. It also adds to the security of the member during sleep. But even when the bandage is applied, it will be observed that the limb is no where ligated by any strap, band, or bandage, the use of which is now pretty generally admitted to be injurious. The bandage being on the outside of the splint, the limb can no where be unequally constricted by it—the sides of the apparatus are merely compressed upon the limb. That the limb will swell more, if a bandage be not directly applied to it, is a lost fear—we may obviate it far more effectually by elevating the lower extremity of the splint.

There is scarcely any more prolific source of mischief in the treatment of fractures, than the direct application of bandages. Many years ago they were snugly applied at the place of fracture, for the purpose of moulding the callus, and shaping the new-formed bone. More recently, they have been used because our fathers have done so before us, and because they are supposed to obviate swelling. But I am persuaded that their effect is directly the opposite—it certainly is, whenever a bandage does not act with perfect equality, and I defy the most skilful dresser, to apply a bandage to a member varying in size from day to day, that shall not constrict it unequally, unless it be frequently re-applied; and this is impossible, without greatly disturbing the injured member. In some modes of dressing, in which bands are firmly applied to the neighborhood of the fracture, it becomes necessary to apply bandages below, to prevent the mischief which might result from its being bound but in one place.

All bands which press upon fractured limbs for the purpose of tying them to the supporting splints, do more or less injury. If possible, the weight alone of the member, sinking it into its bed, should maintain its proper form, and this is the case in the apparatus above delineated. There is no necessity here that the surgeon should perpetually watch for the relaxation of a band, or the displacement of a piece of the splint—nothing, which is necessary to the security of the limb, can give way.

Another great advantage consists in the facility with which the limb may be examined without the necessity of relaxing any part of the apparatus which gives support to the member. Indeed, as the bandage can be removed without inflicting the least pain, it will often be found salutary to remove it every day, and to use gentle friction upon the limb with the hand.

6. This apparatus is especially applicable to the treatment of compound fractures. It is so, first, because of the uniform and easy support which every part of the member receives; and, secondly, because it is so easily accessible. Even should the wound in the soft parts exist on the inferior part of the thigh, nothing is easier than to cut away a portion of the walls of the apparatus, opposite to the place of injury. This will enable us to dress it with perfect facility.

7. In cases in which it becomes necessary to employ permanently extending force, (and I believe that they are not numerous when this apparatus is used,) nothing can enable us, as it appears to me, to accomplish it with more ease than this. In the first place, there is always a gently extending effort made upon the thigh, from the attitude in which the member is placed.—The thigh is placed on one inclined piece, and the leg upon another; the leg, therefore, inclines to drag in one direction, and the thigh in the other, by their own weight. The leg will act on the lower fragment of the thigh to prevent its following the other, which sinks toward the bed.

But when a more powerful effort is required, the leg-piece must, as we have before described, be separated from that of the thigh, brought lower, and again fixed. This has the effect

of elongating the thigh-piece. The leg cannot slide upward, because of the manner in which it is sustained by the slings and bandages. We may also have the foot fixed to the extremity of the leg-piece.

The counter-extension is made with peculiar advantage, because it is effected by nearly the whole cushioned margin of the upper splint, applying itself very extensively to the perinæum, to the tuberosity of the ischium, and to the trochanter, diffusing its pressure extensively over the surface.

8. Another excellence which we claim, is the facility with which the angle of the apparatus is varied, the member being more or less flexed or extended. A little variation in this respect sometimes gives great relief, when a uniform attitude has become tiresome. This also renders the apparatus peculiarly useful when an injury has occurred in the vicinity of the knee joint, and when, after union is supposed to be taking place, we wish to prevent ankylosis of the joint by gentle flexion and extension.

## Adversaria.

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TO PROFESSOR SMITH. .

Sir,—The following cases are designed for insertion in your Journal, if you consider them of sufficient importance to engage the attention of the public.

B. TICKNOR.

ART. 1.—*Amputation of the Lower Jaw, Translated from an Appendix to the Medicine Operatoire, of Sabatier.*

THE subject of this case, on whom M. Dupuytren performed the operation of removing the lower jaw for the first time, was a coach driver, of the name of Lesier, and about forty years of age. In the year 1797, he began to experience a dull pain in the lower jaw, and a fungous excrescence grew rapidly from the socket of the left canine tooth which had broken and removed. This tumor, to which the actual cautery was repeatedly applied, was always re-produced, larger and more painful than before. It degenerated at last into carcinoma; and when the patient, after much hesitation, came in 1812, to entrust himself to the care of M. Dupuytren, and determined to submit to an operation, he is represented to have been in a wretched condition, as the following description will show.

The cancerous tumor extended itself from the second molar tooth on the right side, to the angle of the jaw on the other; the root of the tongue was pushed backward; the teeth lacerated the tumor, from which distilled an acrid foetid sanies. The lower jaw was increased to three times its natural size, and the tumor was deeply buried in its substance, which in fact was disorganized. The tumor, which was of a reddish colour, inter-

spersed with white spots, filled and projected beyond the mouth, which it kept open to as great an extent as the articulation of the jaw would permit. It appeared to be divided into three lobes, one of which projected between the dental arches; the other two elevated, one of them the right, and the other the left cheek. Aliment could only be introduced at the right angle of the mouth by the aid of the finger. Respiration was difficult, ptyalism profuse, mastication almost impossible, and speech scarcely intelligible. Nevertheless the appetite was not at all impaired, the cervical ganglions were not diseased, and the soundness of the patient's constitution removed all apprehension on account of the slow fever, from which he was hardly ever entirely free.

On the 30th of November, 1812, M. Dupuytren performed the operation, assisted by M. M. Breschet, Lebreton, and Li-franc. In order to invigorate his courage, the patient had imprudently drank three pints of wine, a short time before the operation. He was placed in the same position as in the operation for cataract; and an assistant pressed the labial arteries against the bone. The surgeon being seated before the patient, seized the right side of the under lip with his left hand, while an assistant held the right side of the lip and extended it. An incision was then commenced at the middle of the lip, and extended down nearly to the os hyoides. By this incision two flaps were formed which were dissected, and detached from the tumor on each side, which remained untouched. The labial arteries, being imbedded in the muscles, were easily avoided, and the flaps being turned back and held by assistants, allowed the bone to be separated from the remaining soft parts, and its periosteum to be divided. The jaw being then firmly held, was divided on each side an inch from the angle by a smooth saw.

Until this period of the operation only a few drops of blood were lost; but in dividing the soft parts connected with the inner surface of the bone, considerable hemorrhage took place. It was not so profuse, however, as had been expected. The fingers of the assistants applied to the branches of the sub-men-

tal and lingual arteries stopped the effusion of blood; and the tumor was removed entire. The patient now became faint.— A ligature was applied to the sub-mental artery, and actual cauteries of a white heat were applied to the bottom of the wound and put a stop to the oozing of blood.

The powers of the circulation being restored, and there being no oozing from the wound, lint was applied to each stump of the bone, and the flaps were brought together. To facilitate the discharge of purulent matter, an opening was preserved at the lower part of the wound near the os hyoides, by inserting a little lint between its edges. The rest of the wound was dressed with lint, over which compresses were laid, and the whole secured by a proper bandage. At this time a fresh hemorrhage took place, and it became necessary to remove the dressings, and make another cauterization, more difficult than the first; after which the wound was dressed, and the patient walked to his bed.

The parts removed by this operation weighed a pound and a half. The jaw-bone was affected with exostosis, caries, necrosis, and was softened in many places. The fungus which grew from it, and which was deeply implanted in its substance, was hard, fibrous, and grated under the knife. It presented many ulcerations, below which its soft tissue had become lardaceous.

The symptoms which followed so serious an operation, were moderate. Those parts of the dressings which were detached by the suppuration, being removed on the fifth day, it was found that the portion of the divided integuments which had been brought into contact, were perfectly united. The pain and swelling were considerable; and there was a copious discharge of a mixture of pus and saliva from the inferior angle of the wound. The wound acquired every day a more healthy appearance. On the fifteenth day the escars were detached; the patient's appetite was perfectly restored, and there existed no disturbance in the system. Healthy granulations appeared in that part of the wound which had not united by the first intention; the suppuration diminished; the opening kept at

the lower part of the incision closed; and the wound advanced rapidly towards a perfect cure.

On the twenty-seventh day, the patient drove a carriage; on the thirtieth, two small fragments of bone were detached from the stumps, and fifteen days afterwards the cure was complete.

It was not without astonishment, that this man was then observed attending to his ordinary occupations, and presenting only slight traces of the loss of substance which he had sustained. He experienced very little difficulty in speaking, swallowing, and respiration. The soft parts became considerably firm and hard; the two stumps of the jaw-bone approached each other, and a kind of skin has been formed, which has almost entirely removed the deformity. At this time, (1824) M. Lesier is in the enjoyment of excellent health.

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*Results of the Amputation of the Lower Jaw.*

M. Dupuytren has already (1824) performed this operation, in two different ways, eight times. One patient was affected, in consequence of it, with severe inflammation at the root of the tongue, and with that infiltration of the edges of the glottis, which is known by the name of œdematous angina. The patient died. In two others, the disease for which the operation had been performed, which was of a cancerous nature, returned, after appearing for many years to be cured, and proved fatal. But in five or six of the last cases in which the operation has been performed, it has been crowned with the most complete success, and a perfect cure has been effected. In some of these cases the whole of the jaw anterior to the angles was removed. Such was the case of a man who presented himself before the Royal Academy of Surgery for inspection, both before and after the operation. And, what is remarkable in all these cases, the two ends of the jaw-bone approached each other, and have been united by a kind of callus, in a firm and unyielding manner.

"This operation, therefore constitutes one of the most precious conquests of modern surgery. It has recently been performed by M. Sallemond, of Montpellier, on a subject who was freed by it from a cancerous affection, which had destroyed the lower lip, chin, and middle part of the jaw-bone.

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ART. II.—*Aneurism of the Axillary Artery, cured by the Method of Valsalva.*

After making some remarks on what Morgagni says on this subject, Sabatier proceeds as follows:

"But however that may be, I have experienced the good effects of the treatment under consideration, in an officer who had an enormous aneurism situated before the humeral extremity of the clavicle, in consequence of a wound with a sword in the axilla. The danger of his condition was known to the patient, and he resolved to submit to any method of treatment which promised to lessen his danger, or prolong his life. I proposed to him the method of Valsalva, and he submitted to it without hesitation. After being bled several times and confined to his bed, he was subjected to the most severe regimen. His drink consisted of lemonade with a small proportion of sugar, together with a kind of mineral water, and the syrup of comfrey. He made a daily use of the alum pills of Helvetius, and the tumor was covered with a bag half full of the fine bark used in tanning, which was frequently wet with red wine. It was perceived after some time, that the tumor diminished, and that the pulsations in it were less distinct. This appearance of success supported the patient's courage, and induced him to persevere in the use of the means which have been mentioned; and he had the happiness to see the tumor reduced to a small hard tubercle, in which no pulsation could be perceived. The powers of the system were restored by degrees, and I have had the satisfaction to see the patient perfectly cured."\*

\* This method succeeds better in cases of Traumatic Aneurism than in others.  
N. R. S.

**ART. III.—A Case of Necrosis of the Tibia, which required an Operation, to free the Sequestrum from its involucra. By Henry Abbott, M. D. of Baltimore.**

In the early part of the spring of 1828, I was called upon to visit a lad about twelve years of age, the son of a highly respectable farmer of Bucks County, Pa., labouring under an affection which the family supposed to be inflammation of the knee joint. I found the knee swollen to double its natural size, extremely painful to the touch, with all the marks of high inflammatory action, and attended by symptomatic fever. No other position of the limb presented the least appearance of disease; and the patient when questioned upon the subject, referred all his sufferings to the above named joint. Under these circumstances I hesitated not to coincide in opinion with the parents of the child, and accordingly based my treatment, upon the view I had taken of the nature of the disease. I commenced by the free use of blood-letting, placed my patient upon his back with the limb elevated to relieve the blood vessels of the part; purged him, and kept him upon low diet. This plan of treatment was pursued for some time, and apparently with a very happy effect, for the swelling was gradually subsiding, the symptomatic fever abating, and the feelings of the little sufferer were becoming every way more comfortable. I now flattered myself that a speedy termination of the disease was about to be realized, but these hopes were of short duration, for upon a subsequent visit, the anxious mother informed me, that the swelling had gone down entirely in the night, but that her son had experienced one of the severest chills she ever witnessed; and she supposed that he would be attacked with a regular series of chills and fever. From some experience which I had had in diseases of the bones, in the practice of the Hospital and Almshouse of the city of Philadelphia, I was induced to expect in this instance the existence of some deep seated mischief; and although there was a total subsidence of pain, as well as of the previous symptoms, and a careful examination in the course of

the tibia, disclosed nothing that could warrant a conclusion that the bone was diseased, I ventured to communicate my suspicions to the family. The chill did not return, and all the other symptoms being absent, I ceased my attendance, after giving directions to the parents to advise me of any unnatural appearance on the diseased limb. In the course of a week or ten days I was again called to visit the child, with the information that matter had formed on the leg. I visited my patient immediately, and upon examining the tibia, in its course downwards, about one inch and a half below the joint, I distinctly perceived the fluctuation of matter, together with a solution of continuity of the bone. This was precisely the state of affairs that had been anticipated. I immediately plunged a thumb lancet through the integuments, and opened a passage for the pus which flowed freely; and upon passing a probe into the wound the nature of the disease was readily distinguished, by its coming into contact with the sequestrum or dead bone, and imparting to the hand that peculiar sensation, with which surgeons have become so familiar as scarcely ever to be deceived.— Having seen a case of this disease, in the hands of a highly respectable surgeon in Philadelphia, recover by the spontaneous efforts of nature, with the slight assistance of removing, by means of a pair of forceps, the small spicula of dead bone, as they presented themselves at the external orifice, I determined to adopt this course of treatment, although slow in its operation. After giving some directions with respect to his diet and exercise, I waited patiently the operation of nature. Matter continued to issue daily from the opening, over which was placed a small piece of sponge for the purpose of absorbing the discharge. In the course of six weeks, another artificial opening was made through the integuments about three inches below the former, which also discharged a considerable quantity of pus. Between the two openings a septum or bony bridge was distinctly perceptible. From a minute and careful examination made at this period of the disease, it was very evident that the bone was extensively involved, from about an inch and

a half below the knee, to near the ankle joint. I now based my hopes upon the powers of the system to support a long continued drain, until the sequestrum could be completely separated and thrown off. I ordered a nourishing diet, and such exercise as could have no injurious effect on the disease; my patient's health continued for some months very good, some small spiculæ were extracted from the orifices, but the great mass of diseased bone remained firmly enclosed in a new case, or osseous involucrum which had formed around it. Thus matters stood until the latter part of the month of October, when my patient's health began to fail. About this period he was attacked with hectic fever, the chills occurred very frequently, followed by flushes of heat, which were of short duration and observed no kind of regularity. They were soon followed by night sweats, and his strength wasted daily. I now placed him on the use of tonics, aided by such a course of diet as I thought would prove auxillary in supporting his strength. Porter, wine, bark &c., were freely employed, but all to no purpose; he was sinking fast under his complicated afflictions, and his situation now called imperiously upon me to save him from his impending fate. In order to extend to him, all the advantages that would result from the removal of the original cause of his sufferings, I determined upon an operation. To this his parents readily assented, after being informed that it offered the only hope to preserve his life. I accordingly proceeded to the operation—had him laid on his back, with the limb extended, and commenced by making a longitudinal incision with a scalpel through the integuments, from the upper to the lower foramen, and laid bare the newly formed bone between these two points. The integuments were next dissected from the bone on either side, so as to expose the whole of that portion of its anterior surface which was situated between the foramina. By means of Hey's saw, the bony bridge was cut away; two longitudinal incisions were made from the upper to the lower foramen, at the outer edges of the openings, and the piece of bone thus detached, removed. The superior portion of the sequestrum was now

grasped by a pair of forceps, but its extraction was opposed by some small spiculæ of new bone which it was necessary to get rid of. They were removed with a small chisel, and by this means I succeeded in enlarging the opening sufficiently to permit the dislodgement of diseased bone, which was readily accomplished. The cavity was carefully washed with tepid water thrown in from a syringe. The sequestrum, which is in my possession, was brought away entire, and measures four and a half inches in length. The superior part, for two inches, presents nearly a complete section of the tibia, having undergone very little change on its external surfaces; the cancellous or reticulated portion is entirely destroyed. The inferior portion has suffered considerably from the ravages of disease, and is very irregular in its appearance. The edges of the external opening were brought together, and retained in their situation by the interrupted suture, an opening being left for the escape of any matter that might form. A slight discharge continued daily for nearly two weeks, at the expiration of which time the wound healed. The hectic fever, night sweats, &c., left him, and I had the satisfaction to see my little patient restored to his friends with a very useful limb. But one of the most singular circumstances in the history of this case is, that the new tibia is one inch and a half longer than that of the opposite leg. The fibula retains its original connexion at its upper articulation, but is evidently displaced below, thereby forming a natural luxation. As a consequence of this new arrangement, the external malleolus is situated higher than its natural location. The tibia alone articulates with the astragalus, the fibula being removed to such a distance, as to prevent its having any agency in the motions of the joint: and the only inconvenience experienced by the lad, arises from the increased length of the new bone, which renders him somewhat lame.

## Analytical Reviews.

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SELECTED FROM THE MEDICO-CHIRURGICAL REVIEW.

ART. I.—*A Treatise on Neuralgic Diseases dependant upon Irritation of the Spinal Marrow and Ganglia of the Sympathetic Nerve.* By T. Pridgin Teale, &c. p. 117, 1829.

(CONTINUED FROM PAGE 345, No. VIII.)

*Neuralgia of the Heart.*—It not unfrequently occurs that the action of the heart betrays signs of irregularity which cannot be ascribed to structural disease. When excited by mental emotion, or stimulated by exercise, it palpitates with unusual frequency and force; when the causes of its disturbance have ceased to operate, the irregularity continues unabated, and after variable intervals returns without any sufficiently obvious reason. Females seem to be more obnoxious to these "nervous palpitations" than males; as the complaint advances, the paroxysms become more frequent, are of longer duration, are induced by more trifling causes, and are separated by less distinct intermissions; and ultimately to speak or move is quite sufficient to induce them. These palpitations are often accompanied by pains in the heart and lungs, not very unlike rheumatism, which are sometimes seated in the arch of the aorta, sometimes pursue the course of its large vessels, and when they attack the bronchial tubes produce strong asthmatic symptoms. This state of the heart and lungs the author believes to depend "generally, if not always," upon a morbid state of the cervical ganglia of the sympathetic; but as the spinal cord is rarely healthy when these ganglia are diseased, it is not unusual to find that these neuralgic symptoms of the heart and lungs are complicated with darting pains along the cutaneous nerves of the head and neck, fixed pains around the shoulders, pains, numbness and tremors of the arms, and, what is somewhat singular, the left side is more frequently, as well as more violently affected than the right.

"Palpitations, purely nervous, are principally distinguished from

palpitations dependant upon organic disease of the heart, by the absence of other symptoms which denote a change of structure in that organ; in hypertrophy, the pulsations of the heart are more vehement and more uniform; in dilatation, they are felt over an unnatural extent of the chest; when there is obstruction to the circulation from contracted orifices, from loss of function in the valves, or from morbid alterations of the muscular structure, there are generally, in a greater or less degree, blueness, œdema, &c. These symptoms, in general, are sufficient to distinguish the two affections; I will, however, add to them the stethoscopic distinctions enumerated by Laennec: 1. The heart is found to be of natural size; the sound, though clear, is not strongly heard over a great extent.— 2. The shock, although apparently strong at first, has, in reality, but little impulse, for it does not sensibly elevate the head of the observer. The last sign he regards as most important, when, in addition to it, we consider the frequency of the pulsations, which is always greater than natural.” 45.

The two succeeding cases are good illustrations of this form of neuralgia. Mrs. H. aged 53, had been for many years subject to palpitations and dyspnoea, which were supposed to depend upon the presence of water in the chest, which varied much in intensity at different periods, and became so severe in September, 1828, that they occurred repeatedly in the day, and during night not unfrequently awoke her. The action of the heart was very violent, the dyspnoea occasionally threatened suffocation, a wheezing sound was heard in the upper part of the chest, and when the hand was applied to it a peculiar vibration could be perceived. Each paroxysm lasted about 15 minutes, and in the interval the lungs and heart resumed their natural action. She was also annoyed with “fluttering” sensations in the arms, twitchings in the muscles, stiffness of neck, and a hoarse cough, unattended with expectoration. The third, fourth, and fifth cervical vertebræ were very, and a few of the superior dorsal were somewhat tender, in consequence of which leeches were applied with immediate relief, and the next day a blister produced still greater ease. On the 15th the palpitations and twitchings became more severe, another blister was recommended, and by the 22nd she felt quite well. Her complaint again returned on the 20th of December, and was again removed by leeching and blistering; she continued well until May, when another slight attack called for the employment of the same remedies, and up to the 29th August, of the present year, she has not only remained free from every neuralgic symptom of consequence, but has gained flesh and enjoyed good health.

Sarah B. aged 17, had been five months affected with pain in

the region of the heart, and palpitations which occur in paroxysms that are very violent during day, and less severe at night. The pain over the heart occasionally extended to the region of the lungs, the arms and scalp were often attacked with darting pains, an oppressive tightness was felt across the sternum, and there was great tenderness of the five superior vertebræ of the neck. By employing the ordinary remedies—leeches and blisters—and using the saline mixture for slight febrile symptoms, the palpitations and pains gradually disappeared, and in little more than a fortnight she was perfectly restored to health.

Whether, and how far these symptomatic derangements of the heart predispose to organic disease are questions of great interest; but the facts, which we yet possess upon these points, are so few, that it is impossible to enter into them with any prospect of a satisfactory result. When a muscle is forcibly and frequently exercised, an increased supply of blood and nervous energy is sent to it, that the demands made upon it in consequence of increased action may be fully satisfied. This extra supply is followed by extra growth, this extra growth gives rise to augmented energy, and in process of time both the form and function of the excited organ experience considerable change. In the brawny arms of the blacksmith, and in the muscular legs of the pedestrian, these remarks are strongly substantiated; and we are not aware of any principle in the animal economy, which prohibits our extension of this train of argument from external to internal organs. The heart is a muscle quite as much as the biceps, or gastrocnemius; and although it may not be as sensibly alive to mental stimuli as they are, it is subject like them to all the laws of muscular agency and organic life. Why, therefore, may not over excitement largely and long applied modify the anatomy of this organ as well as that of any other muscle, and why may not hypertrophy, or flaccidity of its walls succeed to an increased, or diminished condition of its function, as a limb emaciates from disuse or enlarges from exercise? Laennec admits the possibility of such consequences, while he has never met with any examples, and the author confesses himself unable to speak with decision either in favour or against it; so that at present the subject lies quite open to investigation, and we hope that its great interest will procure for it the attention it requires and deserves. There is no doubt but that organic disease of the heart may exist in connexion with neuralgic symptoms dependent on either spinal, or ganglionic irritation, that they may mutually aggravate each other, and that treatment, exclusively limited to the removal of the nervous irritation, has been found materially to relieve the organic disease. Whether, therefore, it be true or other

that what was mere neuralgia of the heart may ultimately issue in structural alteration, it is in every instance of heart-affection prudent, if not necessary, to attend to the condition of the spinal column.

"The treatment of nervous palpitations and neuralgic affections of the heart and lungs, has in general proved very unsatisfactory.—The means employed as remedies have been various in the extreme. These complaints have been treated by anodynes, antispasmodics, and tonics; by bleeding, digitalis, and prussic acid; by electricity, galvanism, and magnetism; and by irritants and depletory measures applied to the *anterior* parts of the chest. These means have generally failed to give relief, and some of them have even aggravated the disease. Not unfrequently has it happened that the unfortunate subject of nervous palpitations, after having tried in succession almost innumerable remedies, and having repeatedly changed his medical attendant, is obliged to endure with patience his distressing nervous companions, and console himself with the assurance that his complaint is '*seldom attended with danger.*' I feel considerable confidence in stating, that when the disease is treated upon the principle which I have laid down, namely, of referring the palpitations and pains in the heart to disease of the cervical ganglia, the most beneficial results will, in the generality of cases, be obtained." 47.

*Neuralgia of the Stomach.*—We believe it is now very generally admitted that an irregular condition of the stomach, depending on chronic inflammation of its mucous coat, is a frequent source of dyspepsia and its lengthened train of disastrous symptoms. This state may be relieved or removed by proper diet, occasional leeching and gentle sedatives. Another form of dyspepsia results from direct debility of the digestive organs, as a consequence of previous disease, and may be beneficially treated with tonic medicines. But there is a third variety of gastric ailment, which neither leeching and abstinence on the one hand, nor tonics and nutriment on the other can effect, yet the majority of its accompanying phenomena are so similar to those of the preceding cases, that they may be easily confounded. Its principal symptoms are impaired digestion, giving rise to acidity and distension; pain in the stomach, which may be confined to a small compass, or be diffused over the whole epigastric region; flatulency, depending not on the decomposition of indigested aliment, but on the secretion of air by a disordered stomach, pyrosis, pulsation in the epigastre, a corded sensation around the waist, soreness along the edges of the ribs, pain in the intercostal and abdominal muscles, and other indications of disease in the spinal nerves. Indigestion and gastrodynia, the first two of the preceding symptoms, are,

common to gastritis and gastric neuralgia, and cannot be depended on; but the author thinks that the others are very diagnostic, more especially when attended, as they usually are, with tenderness of the spine. Flatulence from secretion, he believes to originate seldom in gastritis, pyrosis never, and a sense of constriction around the waist, soreness of the ribs and muscular pains rarely accompany it, while they are seldom absent from ganglionic disease. *Præ aliis vero*, says Lobstein, *symptomatibus eminent flatuum extricatio, seu pneumatosi, e nervorum actione perversa oriunda*. It must be remembered, however, that these points are not yet sufficiently well understood to admit of positive opinion, and it is certain that if disease of the ganglia continue long, the mucous membrane of the stomach, exposed as it is to continued irritation, may fall into an inflamed state, and thus may appear such an intermixture of idiopathic and sympathetic disease as shall require our treatment to be divided between the epigastre and the spine. Had the following case fallen under the care of some of our London brethren, the class of medicines which would have been adopted, it is not difficult to conjecture.

A married lady, aged 23, (June 5th, 1828) has been complaining for the last five weeks of a fixed pain in the left side of the abdomen, which is increased by pressure, an oppressive weight of the stomach after eating, constant weariness, extreme debility, a sense of constriction around the waist, which during night is distressingly severe, and an afflicting pulsation in the epigastre, which never ceases for a moment. All these symptoms are very much aggravated by taking food, and the stomach is so irritable after eating that it regurgitates by mouthfuls what has been swallowed, until it again becomes empty.—Slight flatulence and acidity are constant attendants on the digestive process. On examining the spine the 7th, 8th, 9th, and 10th dorsal vertebræ betray much tenderness, and some of those both below and above are rather uneasy when pressed.—Aching pains are also complained of in the legs, the skin covering the thighs is sore when rubbed, and prickling sensations are felt in the course of the saphena vein; blister to tender vertebræ; 10th, so much better as to say that she is “not like the same being.” Pain and oppression of epigastre gone, pulsation diminished, food not rejected, is free from flatulence and acidity, lower extremities unafflicted with either prickling or pain; but as the spine was still somewhat tender a second blister was applied with the effect of banishing every morbid feeling.

An emaciated old woman (June 11th, 1828) has complained for several months of periodical pains across the epigas-

sembling cramp, a corded sensation round the waist, sudden and copious discharges of air from the stomach, sometimes continuing for an hour at once, and pyrosis in a severe degree.—The 4th, 5th, 7th, and lower dorsal vertebræ were very tender under pressure, but there was no affection of the extremities.—A blister had been applied to the epigastre without relief; blister to the lower dorsal vertebræ. (19th) Pyrosis and sense of stricture gone, flatulence much diminished, fifth dorsal vertebræ still tender; six leeches to this vertebræ. On the 24th flatulence was trifling, and on the 2nd of July every symptom of disease was gone.

*Angina Pectoris.*—There are few diseases of which we know so little with any certainty as that to which Heberden gave the name of *Angina Pectoris*. The symptoms, by which it is described by various authors, are more remarkable for their variety than any thing else; the pathological products discovered after death are not much more uniform than the symptoms, and its treatment has experienced as many vicissitudes as the theories, which have been fabricated to explain its origin. Dr. Heberden observes that a disagreeable sensation in the breast comes on while walking, more especially after meals, and vanishes the moment that we cease to move. Dr. Walls describes it as a pain under the sternum, extending on each side across the breast, and affecting one or both arms where the pectoral muscle is inserted into the os humeri. Dr. Fothergill relates a case in which the leading symptoms were a sense of tightness around the chest, in a line with the mammæ, and a pungent pain under the left breast, which extended to the elbow of the left arm. Dr. Butter considers that the paroxysms are marked by dyspnœa and flatulence, and that relief is often obtained by eructation. Dyspnœa is excluded from the catalogue of symptoms by Dr. Parry, and he relates a well-marked case in which there was neither pain in the arms, or chest.—Dr. Blackall considers that palpitations are frequently characteristic of this disease, while Burns maintains that palpitations are incompatible with its existence. Parry describes it as depending on an ossified state of the coronary arteries, Desportes regards it as an affection which has its seat in the pneumogastric nerve, and Laennec believes it may originate in a diseased state of any of the nerves which supply the chest and neighbouring parts. The author agrees with these last writers in maintaining that angina pectoris has its seat in the nervous system; but, in place of considering with them that the nervous filaments are the parts diseased, “dans les filets que le cœur recoit du grand sympathique,” he only regards them as the

channel of intercourse, through which some disease in the spinal cord of sympathetic ganglia draws within its influence the functions of the heart. It is certain that symptoms of angina frequently occur and are removed, proving that there can be no serious disease in the structure of this organ; and how often have the coronary arteries been found ossified, where no syncope symptoms had been visible? Looking upon the nervous filaments themselves as the morbid agents, treatment has commenced too generally at the wrong end, and blisters, issues and such remedies have been crowded on the chest; but the author thinks it much more consistent with facts to refer all the symptoms of disease to the nervous masses from which these nerves arise, and to direct our remedial measures to the spine in preference to the chest. Tightness round the waist, oppression at the epigastre, and pains in the intercostal and abdominal muscles he traces to the lower portion of the dorsal spine; flatulence and pyrosis to the lower thoracic ganglia of the sympathetic pairs; numbness in the neck and upper extremities to the cervical division of the spinal cord; palpitations and painful affections of the heart and lungs to the cervical ganglia.

"I have been induced to refer the various groups of symptoms which have been described as angina pectoris, to an affection of some portion or portions of the spinal marrow, and of the corresponding ganglia of the sympathetic, by the following considerations.

"1. The fact, as I have before observed, that most of the morbid phenomena exhibited in the extreme filaments of nerves, are seldom owing to disease in the nerves themselves, but to an affection of the nervous mass from which they are derived.

"2. The co-existence of pain on pressing some portion of the spine with the symptoms constituting angina pectoris; and the correspondence of the painful part of the spine with the particular symptoms which are present; namely, tenderness in the lower dorsal portion of the spine in conjunction with the stomach affection, constriction, &c. and tenderness in the cervical spine, with pains in the arms, breast, and shoulders, and palpitations.

"3. The relief obtained by local antiphlogistic measures to the spine; for instance, to the lower dorsal portion when the stomach is affected, and there is constriction, and to the cervical portion when there is an affection of the arms and palpitations." 108.

Our limits allow us room for only one example and it is an important one, as showing how closely connected the ordinary symptoms of spinal irritation are with those ascribed to angina pectoris, and tending to the presumption that they not only all depend on one common cause, but that they may pass and re-pass into each other, as this cause is moderate or in

A lady, aged 56, applied to the author (on the 18th of August, 1828) in consequence of general muscular debility, palpitations, sense of epigastric tightness, and flatulency.—Most of the cervical and some of the dorsal vertebræ being tender, leeches were first ordered and afterwards a blister, which gave such relief that in a few days she acknowledged herself better than she had been for many months. But on the evening of the 25th she was suddenly seized with coldness, an inexpressible sense of suffocation, tightness and oppression of chest, pain darting from the left arm into the elbow and down from the neck to the left breast, with a frightful feeling of impending death. A discharge of air from the stomach gave some relief, and a sinapism to the spine, warmth to the extremities, and internal stimuli soon restored her to a state of comparative ease. As the spine was again tender, and the symptoms at first complained of were again visible, blisters were recommended; but the patient, being obliged to return to her family, was removed from Mr. Teale's care, and the final result is unknown.

The diseases, which have now been described, appertain more especially to the heart, lungs, and stomach; but the author believes that other organs are occasionally affected in a similar way and from the same cause. The small and large intestines, the kidneys, bladder and uterus are not unfrequently the seat of neuralgia depending on spinal disease, and remedial by means directed to the tender vertebræ. *Hodie certissime evictum est, sava Lobstein, quod tot numerosæ sensationes quæ in epigastrio percipiuntur, neque ad musculos, neque ad oagana gastrica sint referenda; sed magis ad plexum nervosum gangliosum trunco cœliaco insidentem.* Autenreith likewise observes (in the first volume of the *Jübinger Blätter für naturwissenschaft und Arzneykunde*) that in the bodies of those who have died of typhus, he has occasionally seen the abdominal nerves altered in appearance.

"It is of great importance to bear in mind the circumstance that these nervous affections sometimes accompany other diseases.—When the vertebræ, or intervertebral cartilages are inflamed, the neighbouring nervous tissues often participate, and neuralgic symptoms are the result. These nervous affections often constitute the most distressing part of the complaint, and, by proper attention to them the sufferings of the patient may from time to time be alleviated during the lingering progress of the vertebral disease. In fevers, symptoms of a neuralgic character often make their appearance, and aggravate the sufferings of the patient. The following case lately occurred to me. A young lady, having proceeded in a favourable manner for two or three weeks under common fever,

became affected in the afternoon with paroxysms of oppression in respiration, attended with severe aching pain and constriction round the waist. These symptoms returned about the same hour for four or five days, gradually increasing in violence until they became truly alarming; tenderness was discovered in two or three of the dorsal vertebræ, and a few leeches applied to the painful part, prevented the recurrence of the attacks. The fever afterwards pursued the usual course, and ultimately terminated favourably. Neuralgic affections of the scalp, connected with tenderness in the cervical vertebræ, often occur in fever, and are sometimes mistaken for pain of the encephalon. In phthisis, pains in the intercostal muscles, and oppression of respiration, are often of a neuralgic character, and readily admit of alleviation; the more formidable disease of the lungs, however, seems to predispose to their recurrence.

"Dr. Brown has observed neuralgic pains in the neck and scalp accompanying severe inflammatory affections of the fauces, and has also met with similar symptoms in conjunction with hepatitis. My own observation enables me to confirm these remarks of Dr. Brown. The principal neuralgic symptoms which I have observed in conjunction with hepatitis, are constriction across the epigastrium and pain or tenderness along the cartilages of the ribs. This pain is sometimes supposed to be seated in the liver when the right side is affected, but a precisely similar affection is as frequently met with on the left. I have known this neuralgic affection to be treated as hepatitis when there has not been any real evidence of disease of the liver. A patient is now under my care, who is suffering from hepatitis, as denoted by yellowness of the skin, bilious urine, clay-coloured fæces, and deep-seated tenderness beneath the cartilages of the ribs; during the course of this complaint, he was for several mornings in succession attacked, about five o'clock, with pain and constriction across the epigastrium which he compared to cramp, flatulent distention of the stomach and intestines, pain along the cartilages of the lower ribs on each side, and on pressing these parts a degree of soreness was felt; the attacks continued from one to two hours, during which great restlessness was produced. Tenderness was detected in the vertebræ, and a blister has quite removed the paroxysms.

"These circumstances point out the important fact that irritation of the capillary expressions of nerves may sometimes excite actual disease in the parts where the nerves originate. 55.

With a few remarks upon the probable connexion between colica pictonum and nervous disease, and a cautionary admonition to the reader against supposing that he has been either advocating an impregnable theory, or a practice which must ever prove infallible, Mr. Teale concludes his little work, and it were quite superfluous in us to repeat in plainer language than has been already used, the estimate which we have formed of its

execution. Suffice it to remark that, although we do not look upon his plan of cure in neuralgic disease as proof against disappointment, we consider it one of the most promising which has ever been recommended; and, although we must as yet hold his views of this disease as theoretical, until dissection supply the *experimentum crucis*, we are troubled with as few misgivings on the subject of its orthodoxy, as any can be during the absence of the *chief witness*. Mr. Teale has done much in a little book to elucidate an obscure order of diseases, and we have no doubt but that his labours will receive that recompense which talent and industry deserve.

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ART. II.—*Thoughts on Febrile Miasms. Intended as an answer to the Boylston Medical Prize Question for 1830. "Whether Fever is produced by the Decomposition of Animal, or Vegetable substances; and if by both, their comparative influence?"* By Charles Caldwell, M. D., Professor of the Institutes of Medicine, &c., in the Transylvania University, Lexington, Kentucky.

THE Essay entitled as above is understood to have obtained the Boylston prize recently offered for the best treatise on this important subject. We deem it our duty, therefore, to give a concise analysis of its contents.

After some preliminary remarks on the importance and the difficulty of the subject, the author states that febrile miasms are of two kinds, contagious and infectious. The *contagious* are the product of living matter, the result of morbid secretion; a contagious miasm is secreted by the salivary glands of a rabid dog. The infectious are produced by changes in dead matter *presumed* to be of a chemical character, but not well understood. They are generated in no laboratory but that of nature.

But *contagious* miasms are also sometimes derived from dead matter, and these propagate their kind by the peculiar action which they induce—the small pox, for instance. This, when epidemic, is an atmospherical disease, and is thus imparted to individuals who have not been exposed to contagion. The poison is then not the product of secretion—whence it comes we know not. Small pox is more malignant when it is epidemic, than when communicated by contagion, and then often attacks the same individual a second time. The epidemic constitution predisposes the system, and the virus acts with the more effect on it thus weakened. Our author doubts whether, as is gene-

rally believed, the small pox was introduced into Europe by the crusaders. He says that when it first made its appearance in Europe it spread as an epidemic, and that its propagation did not depend on contagion—its progress being too rapid. It passed from city to city with great rapidity. Had it, (he says,) arisen from contagion, it must have been introduced much earlier, since commercial intercourse existed long before.

Our author here certainly asserts his belief with far more confidence than his arguments warrant. His reasoning is certainly weak in regard to its introduction from Asia into Europe. He says that, if it arose from contagion, it ought to have been sooner introduced. With precisely equal propriety might it be asserted that it should have occurred earlier if of epidemic origin, for, as he says himself, "there is nothing in Asia to generate it more than in Europe," and we know that it existed in Asia long before it occurred in Europe. We can easily imagine, too, why the slow and unfrequent commercial intercourse previously existing should not convey the disease by contagion. Persons thus contracting the disease would perish on their way, for those toilsome journies resembled rather pilgrimages, than the rapid voyages of modern times. But in large armies the disease would be kept alive by being imparted from one to another, until it was transported for hundreds of leagues. The fact, too, that the disease spread more rapidly at its first introduction than it has since done, also makes directly against his position. If contagious, this would certainly be the case while men were yet unacquainted with its nature, and the means of its communication. If it were of epidemic origin, subsequent epidemics should occasionally spread as rapidly as the first.

The more rapid diffusion of the disease, since it has assumed the varioloid form, is also hostile to his doctrine. This disease is more mild—but an epidemic disease which spreads rapidly is usually severe and malignant. If it be contagious, it is obvious that a more mild disease, which individuals may even bear about them in their ordinary avocations, would be far more rapidly and in some instances unaccountably communicated.

Finally, when an individual contracts small pox, it is gene-

rally easy to trace its origin to contagious communication; and when this cannot be done, it is infinitely more difficult to prove the negative. Contagion is sometimes conveyed in the most astonishing manner, and accident has occasionally revealed a mode of communication which would otherwise have never been suspected. That small pox had a spontaneous origin is obvious, and that the same concurrence of circumstances does in the lapse of ages re-produce it, is probable. But there is certainly no sufficient evidence that it is epidemic, or extensively produced by a peculiar constitution of the atmosphere acting on the system. He says it is now often epidemic in America. Why then did it not occur among the Aborigines?

Dr. C. thinks that it is almost certain that the primitive origin of all contagious poisons must be referred to changes in dead matter. There would seem to be, (he says,) no other source, for they must have had an existence before they could have re-produced their kind in man, or any animal. Query, might they not have been generated in the human system by morbid secretion, as the poison of a rabid animal is?

The author inclines to the belief that measles are not contagious.

We must confess that we are astonished at the absurdity of his scepticism in this particular. The science of medicine will be scoffed at by old women, so long as physicians, in their efforts to generalize, attempt to reason away facts of every day occurrence. We positively know measles to be contagious, from the following facts. But a few weeks since, the writer attended a child which had been long affected with purulent ophthalmia. At length the disease began to yield, and we flattered ourselves that the cure would soon be accomplished.—But suddenly the child was affected with aggravated febrile symptoms—the appetite failed—the eyes became again extremely irritable—there was occasional sneezing, cough, and discharge of mucous from the nose—every symptom, indeed, which ushers in measles. But, as the child had for a long time been confined to an upper room which was visited by but few

persons, and by no other children, and as measles were not then prevailing in the immediate vicinity, we did not suspect the true nature of the affection till the eruption made its appearance.

For a time, no one of the family would admit that there had been the least exposure, and the case thus far was an admirable one for the non-contagionists. But after some days, it was discovered that a young woman, living in the country, had visited the child precisely two weeks before—that she was unwell at the time, and that on the next day, after returning to the country, she had the eruption of measles. The family distinctly remembered that she was unwell with symptoms which usher in measles, on the day that she visited the child.

In our own family it has been recently proved with equal precision. One of the children of the writer was accidentally exposed to measles in May last. In two weeks after the exposure, (which was known,) the disease occurred. In precisely two weeks more, three other children of the family sickened with the disease.

Indeed, every nurse and mother has facts enough in her possession, relative to this topic, to overthrow all the dogmas of the non-contagionists from Hippocrates down to the present time.

We are not a little surprised that a doctrine so inconsistent with the plainest common sense and common experience, should be found in an essay to which a prize has been awarded by the very intelligent members of our profession in the city of Boston. Such an assertion, thus sanctioned, is calculated greatly to diminish public confidence in the certainty of medicine. Even admitting that the essay is meritorious in other respects, such an error should be regarded as covering a multitude of excellencies. It is a position which will generally be received with the same sort of indignant surprise, that a man of common sense feels when he hears the absurd philosophical dogma that there is “no heat in fire.” Indeed, since the exploits of the fire-king, we think the latter assertion has certainly the advantage over that of our author.

To this class of *infectious* miasms are referred influenza, scarlatina, pertussis, typhous fever, pneumonia typhoides, plague, yellow fever, the sweating disease, dengue, &c. All epidemic and endemic diseases are from the same source. Epidemics depend upon peculiar constitutions of the atmosphere. One peculiar constitution gives rise to influenza, another to scarlatina, &c. &c. He states that two of these constitutions can never co-exist in the same place; for two portions of matter might as well occupy the same point of space.

This mode of analogical reasoning is very loose and equivocal. They who are of a different opinion, might with equal propriety aver, that two epidemic constitutions, *can* co-exist in the same place, as well as two colours in a coat, and, indeed, with far more propriety, for, as in the latter some threads may be white and others black, so may one part of a community be susceptible to one epidemic constitution, and another part to a second. Here again our author labours to subject facts to theory. Again and again we have seen two epidemics prevailing at the same time and place—measels and hooping cough, for instance,—dysentery and typhous fever. It has been often asserted with great confidence, and generally conceded, that two epidemic diseases cannot co-exist in the same individual, but even this doctrine has been overthrown by facts. Dr. Sheldon, of Litchfield, Con., than whom there is no better authority, asserts in a letter to the late Professor Smith of Yale College, that “in the course of the year 1807, the mumps, hooping-cough, and measels were all prevalent in this town, at the same time. The children of the Rev. Dan. Huntington were subject to these complaints. One of them had the *mumps, hooping-cough and measels* at the same time; another, measels, *and one of the other complaints*. *In each child the peculiar symptoms and appearances of each disease were exhibited and strongly marked*; and so far as I observed, progressed together, without any mitigation or suspension of either.” If, then, not only two, but even three epidemic diseases may co-exist in the same individual, *a fortiori*, (admitting, as Dr. C. asserts, these diseases to be epidemic) two or more epidemic constitutions of the atmosphere may unquestionably exist at the same time, and in the same place. If the facts

stated by Dr. Sheldon do not give a quietus to the theory of Dr. Caldwell, we know not the force of truth.

Our author states with truth that the diseases which are so often ascribed to vicissitudes of temperature, are by no means thus satisfactorily accounted for. For if so, why do not similar vicissitudes produce similar diseases? That they do not is notorious; for at one time a sudden change from warm to cold produces epidemic catarrh, at another, epidemic peripneumony, and at a third, epidemic dysentery, or cholera. Nor does the intensity of disease correspond with the degree or suddenness of the change. The nature and intensity of the disease rather depend upon a mysterious quality of the atmosphere, which we term its peculiar constitution. The Doctor's opinions in this respect are neither new, nor so heterodox as he seems to fear they will be regarded. We think that Sydenham is sufficiently explicit on this subject. Dr. C. indeed, carries his belief in epidemic constitutions very far, and perhaps too far to be consistent with some of his other statements. If almost all diseases arise from epidemic constitutions, and but one of these can exist at the same time and in the same region, how happens it that we so often find ourselves, in ordinary practice, attending at the same time cases of dysentery, pneumonia, influenza, &c. &c.

Dr. C. declares his confident belief that scarlatina and whooping-cough are *not* contagious. In regard to the former there still exists a question, but in relation to the latter, his opinion certainly will be, as he seems to fear, "regarded as unfounded." That whooping-cough is perhaps sometimes generated without contagious communication, is probably true, and in this respect the disease is analogous to small pox; but that it is generally propagated by contagion is almost so palpable as to be self-evident. The Doctor remarks that the disease does not spread from a single family, or individual, in a regular and gradual manner. Many families in different places are simultaneously attacked, and its spread is irregular. It often passes over whole neighborhoods to attack others at a distance. Now, ad-

mitting it to be contagious, how easy is it to account for all this from what we may term the portability of this disease. A child having contracted it, not being sick enough to be confined, goes to a school frequented perhaps by fifty other children, and before the disease is suspected in him, communicates it to almost every family in a district.

He also observes that the fact, that neither measles nor whooping-cough can be propagated by inoculation, is a circumstance in favor of his belief—so, also, the fact that the contagionists cannot designate the tissue by which the poison is secreted.—But certainly this can be no more necessary to establish the contagious character of a disease, than to point out the precise origin of a miasm, is to prove the *epidemic* character of a disease. He says, too, that these diseases cannot co-exist in the same place. We are astonished beyond measure at the boldness of this assertion. We positively know that at this moment scarlatina, measles, varioloid, and whooping-cough all exist promiscuously in the city of Baltimore. How absurdly then does he say that they (either of them) have exclusive possession of the atmosphere, by means of their miasms. We fully agree with the author when he states, “that farther arguments to the same effect might be adduced; but they are deemed unnecessary. If the foregoing are fallacious, and can be refuted, others no stronger would not be likely to have a better effect.”

Let it be observed that our author denies the contagiousness of these diseases on speculative grounds, and from negative testimony, than which no logic can be more frail. We can bring, on the other hand, thousands of witnesses to declare that they have known the disease to be propagated by contagion. Which then should we believe? Certainly the latter, for theirs is direct and positive testimony. Let us illustrate this mode of reasoning. Let us suppose that five creditable witnesses were to declare to me that they had seen a person, well known to me, in the city of Baltimore, yesterday, and that a thousand others should say that they had not seen him. We should certainly, and without hesitation, believe that the individual had been in

the city, on that day; because the testimony of these five is positive, whereas that of the thousand is negative. He might have been in the city and they not see him. But it is impossible that the five should be deceived who saw and spoke with him.

Now we, who are contagionists, do not assert that measles and hooping-cough are always communicated by contagion, but only that they are generally so. When, therefore, the nullifiers adduce testimony to show that in certain cases (a thousand if you please) the disease was not imparted, it proves nothing, but all falls before a few facts like those which I have already stated. Let not the author lay this unction to his philosophy, that yellow fever was once as confidently believed to be contagious as are now measles and hooping-cough. There is no analogy whatever between yellow fever and these last. Yellow fever has never been known to diffuse itself beyond certain limits. It is a disease with which men of science have comparatively but recently become acquainted—it occurs at more remote intervals, and in comparatively but few districts. It is of so appalling a character also that the circumstances of its origin were never calmly contemplated. But measles and hooping-cough prevail every where, and at all seasons. They are diseases which are contemplated without apprehension, and children have been again and again purposely exposed to their contagion, that they might contract them at a favorable season, and they have then contracted them. The whole community are witnesses to the facts which prove their contagionsness.—This appears to us to be the true inductive reasoning on the subject.

Our authors remarks in relation to the supposed origin of miasms are judicious, and we give them entire.

“Of the origin of the several miasms which have been noticed, I have not spoken; nor need the ground of my silence on the subject be concealed. I can say nothing respecting it satisfactory to myself, or which I could expect to be deemed satisfactory by others. I am indeed ignorant of their origin. From what source, or by what means, the atmosphere becomes im-

pregnated, at different times, with the miasms of influenza, measles, scarlatina, hooping-cough, peripneumonia typhoides, and epidemic pleurisy, rheumatism and ophthalmia, physicians may conjecture, but cannot discover, in the present state of medical science. And as I have no wish to add to the number of existing hypotheses, I shall not hazard an opinion on the subject.

"But there remains a miasm more interesting and important to us than all the others, at whose existence and action I have hinted. Of this our knowledge is supposed, at least to be somewhat more extensive and accurate. I allude to the miasm of marshes, to whose influence is attributed every modification of autumnal fever. Nor is its action limited to the complaints of autumn. Throughout the year it is busy, in some climates; and even in our own, we feel its effects in spring and summer.—Nor are we free in winter, from its lingering action on those who had suffered from its influence during the preceding autumn. Thus does it run perpetually its circle of mischief. I proceed now to the consideration of this poison, and purpose to speak of it somewhat in detail.

"Of all febrile miasms, that of marshes is the most ancient, universal, and destructive. In these respects it has no rival.—If, once in a term of several years, the miasms of small pox, measles, influenza, and scarlatina, overrun tracts of country of considerable extent, that of marshes exhibits its effects in every populated country of the globe, during a portion at least of every year. All other miasms appear, from their history, to be comparatively of modern date. The ancients had no knowledge of them; or if they had, they have failed to leave a record of it. But the existence of marsh miasm is coëval with that of the human race. If the views entertained of its origin be correct, its commencement must have been contemporaneous with the first decay and dissolution of animals and vegetables. According to the present system of physical influences, its production seems to be as necessary, and as much in harmony with the laws of nature, as the descent of ponderous bodies, or the growth of plants. Since the first establishment, then, of the present order of things, it must have existed and produced its effects.

"In our most ancient writings, those effects, if not expressly recorded, are virtually alluded to. The plagues of Egypt were as much the offspring of the miasm of the Nile, in the days of Pharaoh and Busiris, as they are at present. Since the subsidence of the first inundation of that river, its banks must have been a hot-bed of this febrile poison. Wherever, in the

habitations of Israel, or among the nations around them the pestilence "walked in darkness," the same virus was present.

"The pestilence which desolated the Grecian camp, on the plain of Troy, is ascribed by the poet to the resentment of Apollo; but the philosopher derives it from the miasmatic exhalations of the Simois and the Scamander."

We conceive that Dr. C. carries his doctrine of miasms quite too far, when he ascribes to these epidemic constitutions, *all choleras*, and most of the diarrhoeas and dysenteries that destroy such myriads of the human race,—also bilious cholic, jaundice, hepatitis, dropsy, enlargement of the spleen, and several other chronic complaints.

Our author's remarks on the history of the doctrine of miasms, we deem it expedient to pass over, merely observing that it is only within about 150 years that the subject has received proper attention, and that the first who distinguished himself by its investigation was Lancisi, of Rome, who was born in the year 1654. Nor do we deem it necessary to analyse his argument in favor of the existence of miasms, for we believe that our remarks will fall into the hands of but few who are so sceptical as to deny them; and yet the scepticism of such would not be at all more surprising than that of Dr. C. himself, in relation to contagion.

The author does not essay to explain the essential nature of the miasmatic poison. No eudiometrical test has yet been discovered sufficiently delicate to detect the lurking agent. A thousand chemical principles have, it is true, in turn been conjectured to be the basis of the secret poison.

The author next proceeds to reply more directly to the question proposed, "Whether Fever is produced by the decomposition of animal or vegetable substances; and if by both, their comparative influence?"

To reply to it fully, he does not attempt, deeming it impossible. He premises his reply by remarking that most of the lower order of animals, especially such as inhabit the water, and burrow in the ground, have nearly the same chemical constitution as vegetables. He thinks, therefore, that their products

from chemical changes must be very similar. It is but rarely that the larger animals, whose chemical composition is more peculiar, perish and are decomposed in sufficient numbers to influence the chemical constitution of the atmosphere. It is chiefly with reference, then, to the decomposition of the lower order of animals that the reply is to be made.

Typhous fever, however, the author regards as springing exclusively from animal matter exhaled from the human body, undergoing the changes which often occur in prisons, ships, and other impure and badly ventilated apartments. This differs from contagion, in this respect, that the matter when exhaled is perfectly harmless, but by spontaneous chemical changes becomes a virulent poison, when no longer subject to the powers of life; these, however, not being the result of mere putrefaction. We know nothing of the nature of the poison but by its effects.

In reply to the Boylston question, the author avers that marsh miasm, the remote cause of bilious fever, is the product chiefly of vegetable matter in the process of decomposition, but not of *real putrefaction*; for the poison exists where no signs of putrefaction appear. His language is here somewhat ambiguous.—What is the putrefaction of vegetable matter? certainly nothing but its *chemical decomposition*—the separation of those chemical principles which compose it, and perhaps their re-composition. When gases which offend the sense are produced, we are accustomed to term this chemical decomposition, putrefaction. What does the author mean, then, by asserting that marsh miasm is the product of vegetable decomposition, but *not of real putrefaction*. If he had said that, in the decomposition which takes place, the production of odorous gases is not necessary to the generation of miasms, we should understand him.

But here we feel ourselves constrained to throw down our glove and at once challenge, in all courtesy, the correctness of our author's main position, that even the mere chemical decomposition of vegetables can alone produce marsh miasms. There must exist some quality of soil or climate, or some peculiar

chemical constituent of the water, which aids the recombination, or no miasmatic poison can be generated. And here let us produce another of those obstinate facts which mar the integrity of so many medical theories—a fact which all the sophistry on earth cannot put down or circumvent.

On the waters of the Connecticut river, a stream 300 miles in length, with many marshes, small lakes, and ponds communicating with it, such a thing as intermittent or remittent fever is never known; and yet vegetable putrefaction is abundantly taking place, since vegetation in the valley of the river is exceedingly luxuriant. Forty or fifty miles to the west of this river, however, *in the same latitude*, on the waters which fall into lake Champlain, both intermittent and remittent fevers are extremely common. These facts we know from personal observation, for we have resided for years both on the western and on the eastern side of the green mountains. The facts are known to thousands who are now residing there, and to them we appeal. We will here adduce also the testimony of an individual who practised for forty years in the vicinity of Connecticut river, probably more extensively than any other individual ever did.—The late Professor Smith of Yale College states, in his *Essay on Typhus*, that, “On the Connecticut river from North Hampton, in Massachusetts, to its source, a distance of more than two hundred miles from north to south, and on all its tributary streams, on both sides, for an hundred miles in width, there ~~has~~ been no instance of any person’s having contracted the intermitting fever, from the first settlement of the country to the present time.”

Our author states that bilious remittent, and intermittent fevers which prevail in the country, are perhaps universally the product of vegetable decomposition—sometimes, undoubtedly, aided by the decomposition of those lower orders of animals, whose chemical constitution so much resembles that of vegetables. The yellow fever of cities, however, he believes to be often the offspring of animal putrefaction. He adduces many instances in which this fatal pestilence, occurring in the city of

Philadelphia, was fairly referible, at one time to putrefying oysters—at another to damaged hides. To those who aver that, in many instances, great quantities of animal matter have been decomposed without the production of such disease, he makes the following remarks, which will be found to apply with singular felicity to his own reasoning against the contagiousness of certain diseases. “To sound etiologists it is scarcely necessary to observe that this form of reasoning is not only inconclusive, but exceedingly hazardous. *Its character is negative.*—It virtually contends that, because an event has not occurred under one set of circumstances, it cannot occur under another.”

The author candidly admits the many difficulties which encumber his belief in relation to the origin of yellow fever.—His opponents ask “if such are the sources of yellow fever, why does it not prevail every summer?” To this he replies, that the warm weather of every summer is not sufficiently intense, or protracted, and a congenial epidemic constitution of the atmosphere does not always exist. He might also have stated that, in cities of southern latitudes, in which the causes of yellow fever are found, it does prevail every year, and, indeed, in some tropical cities, almost constantly. Against his belief, too, that the disease often arises from obvious nuisances, it is averred that, when the nuisance is removed, still the disease continues to be propagated in the same place, and perhaps more widely than before. To this he finds it difficult to reply, but at length comes to this conclusion, that from the damaged fish, corn, hides, or other putrefying mass, the miasm first goes forth, “and the disease then begins in its immediate neighborhood. As the season advances, the common impurities of the streets, which also consist of animal or vegetable substances, or of a mixture of both, are brought into a similar state of preparation. In them, therefore, the same process is excited and the same changes are produced.” It is a little singular that after this statement, he condemns the belief of some pathologists that the miasm, first emitted from the original nuisances, may act as a ferment to excite, in other masses of filth, the

process necessary for its own production, and that by its operation on dead matter, it thus contributes to its own continuance. This he says is "only a conjecture, unsupported by fact."—But, in the name of good logic, where is the difference between this assertion and his own, just stated, that the disease begins in the neighborhood of the nuisance, but that soon the common filth of the street is "brought into a similar state of preparation." Brought into a similar state of preparation by what? It cannot be by the ordinary influence of heat &c., because this operates simultaneously on every section of a city; but the epidemic influence diffuses itself gradually from the centre where it first originated, creeping by inches along the deserted streets. If his statement means any thing, it means that "they are brought into a similar state of preparation by an assimilating influence in the first cause."

Dr. C. next proceeds to inquire, *what are the agents requisite to the production of marsh miasm?* They are (he says,) in brief, heat, moisture, and dead organic matter, existing together in due quantity and proportions. In what manner these agents reciprocally act upon each other is not known. Marsh miasm can never be generated when one of these is absent—not, for instance, when heat is wanting, nor when moisture is absent.—Perfect aridity is inconsistent with it.

The author quotes, to condemn, the opinion of Dr. Ferguson, that a paucity of water is indispensable to the production of marsh poison, on all surfaces capable of absorption. To the opinions and facts presented by Dr. Ferguson (for which we refer to that gentleman's writings) he opposes those of Dr. Lind—indeed, he might adduce those of almost every pathologist, for Dr. Ferguson's opinions are as singular as some of his own doctrines. Moisture is undoubtedly necessary to the production of miasmata, although Dr. F. presents us with some troublesome facts in relation to this matter. Too much water, however, by diluting the products of decomposition, seem to hinder its production. Alluvial earth, which always contains a considerable quantity of vegetable matter, when exposed to the ac-

tion of heat and of the air has often been observed to be a prolific source of miasmatic exhalations. The author states that in Natchez, in 1820, the police of the city had occasion to excavate certain streets to the depth of six or eight feet, and with the alluvial earth, thus removed, hollows were filled up in other places. This was exposed to a burning sun and heated atmosphere, and gave rise to a miasm of a most malignant and desolating character.

Next the Dr. inquires—"How far does miasm, travel from the place where it is produced?" We are not in possession (he says) of a sufficient number of facts to render a complete reply to this question. He declares it to be his belief that miasmata are never conveyed farther than a mile from the place of their production. He believes it to be capable of being conveyed through the atmosphere by the wind, in proof of which he adduces facts too familiar to need repetition here.

We shall proceed no farther in the analysis of Dr. Caldwell's Essay, since the remainder contains doctrines less peculiar to himself, and facts which are familiar to most readers. We have taken the liberty to discuss the author's doctrines with perfect freedom, though we trust not disrespectfully. His Essay certainly contains much that is valuable, and even his errors are maintained with not a little ingenuity. Those errors, however, are in our humble opinion so inconsistent with sound pathology, and so important in regard to the safety of the community, that no conscientious reviewer can reserve his sentiments. They are so numerous, also, that we cannot but repeat our surprise that the Essay has won so much of the admiration of our eastern brethren, and taken the palm from among them. We infer from the Doctor's own language, that he will neither be surprised nor offended that his opinions have thus been assailed. If they are the golden truth, the coals which we have heaped upon them will only cause them to shine the brighter.

## Abstract of Foreign Medicine.

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### PRACTICE OF MEDICINE.

*Blake on Delirium Tremens.*—An Essay on D. T. by Andrew Blake, M. D., is reviewed in the October number of the Edinburg Medical and Surgical Journal. The Doctor rejects the name which common consent seems to have conferred on the disease, and coins one of his own, *Erithismus Ebricitatis*. He defines it thus:—"Indirect general debility, succeeded by a morbid increase of action in the brain and nervous system, which is attended with delirium, and terminates generally, either in sleep and subsequent health, or in death from collapse, or effusion on the brain." This we believe to be correct. The symptoms of the disease being familiar, we shall pass over what is said of them, in the analysis from which we quote.

In a case which was the subject of post mortem examination, the author discovered the following appearances. The brain appeared healthy, except that a small quantity of lymph was thrown out between the dura mater and the arachnoid membrane. There was serous fluid in all the ventricles, but more especially the lateral. The choroid plexus was not turgid—viscera of thorax and abdomen natural—liver small but healthy.

In the treatment of the disease, Doctor B. urges careful attention to the distinct stages of the disease. In the first stage, when there prevails gastric derangement with nausea and vomiting, he uses effervescing draughts, with tinct. opii., ten drops, every second hour, with emmollient anodyne enemata. In the intermediate hour, he gives an ounce of rum, with warm water and sugar—warm bath, or cold effusion according to strength of patient, and probability of producing re-action—cold for young and vigorous, but warm for feeble and old. He also advises anodyne frictions on the epigastrium—that the head be shaved and rubbed with volatile liniment—blister on the neck.

When the stage of nervous re-action and excitement supervenes, he advises the administration of full doses of opium, supporting the system with brandy, wine, ether and antispasmodics. To these he adds Dover's powder 6 grains, and calomel 2, every two hours, till the system becomes affected, or the disease yields. The mercury he uses for the purpose of equalizing excitement, and removing obstructions. The warm bath he continues for the same purpose. Cold applications are made to the head.

*Uterine source of Neuralgic Pains.*—From No. 25 of Johnson's Journal, we analyse and condense a case illustrating a pathological circumstance just named. A female, æt. 25, irritable, liable to palpitations, and to frequent pains in head and side—her monthly periods irregular—discharge rather profuse, and sometimes clotted, had her catamenia suppressed by application of cold water to the legs. In two days, was seized with pain at the præcordium, but which soon fixed itself in the lower part of the abdomen. February 11, came to Guy's Hospital. Pain very severe—belly very tender—bowels unmoved—pulse 120—tongue slightly furred. V. s. 16 ounces, purge of extr. of colocynth and calomel—fomentations. The extr. was given with the hope of reproducing catamenia. Evening—great aggravation of pain from operation of pills—6 drachms castor oil.

Bowels freely moved—next day, better—severe pain occurring at intervals, and chiefly in region of sigmoid flexure. Next day, had 1

turn of catamenia, and morning after free from pain. Catamenia ceased again in the evening and pain returned. This subsided under former treatment; but on 3d day after, she had acute pain under the margin of the ribs of the right side. This at first appeared like pleurisy, being increased by inspiration; but it varied much in intensity, and at intervals was much aggravated, which, with the history of the case, showed it to be neuralgic. It was relieved by a blister and the conium.

*Production of Worms in the Human Body.*—Professor Scouler of the Andersonian University, advances an ingenious and interesting hypothesis in relation to this subject. He first shows that two sexes are by no means always necessary to reproduction, for some animals may have an organ cut away, and it will be reproduced by the nutrient vessels. Others may be cut into many pieces, and each portion will grow into a perfect animal. He thinks, therefore, that we may advance a step further and maintain with plausibility that entozoa, or worms, may be produced by the animal which they inhabit. When we consider the variety of tissues which the nutrient vessels are capable of elaborating in the living system, it seems not improbable that the same vessels may form other structures of far greater simplicity. Tumors and tubercles he supposes to be organized by a preternatural exercise of the generative powers of the vessels, which form the healthy organs. These he says are something analogous to worms, and have, like them, a kind of life distinct from that of the rest of the system. The analogy of hydatids is still more striking, for they are admitted to be parasitical animals. Mr. Carmichael maintains, with great ingenuity, that cancer is a parasitical animal, preying upon the living system. Now, Mr. Scouler avers, that worms are produced, not by the fluids of the cavities, but by the generative powers of the vessels themselves.

The principal objections to this theory are, that many worms are organized as male and female, and have distinct organs of generation. It may be presumed, too, that if produced in the fortuitous manner described by Professor S. they would have nothing regular or determined in their forms.—We condense the above from an article in the last number of the *Medico-Chirurgical Review*.

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We would direct the attention of our readers to our strictures on the doctrines advanced in the Prize Essay of Dr. Caldwell. If it contains that which can be shown to be erroneous, it should certainly be promptly exposed, since the *Boylston Censors* have conferred upon the paper a character, and degree of influence, which, of itself, it might never have achieved.

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With the present number, our subscribers will each receive a lithographic portrait of the late lamented Professor Wells.—For it, we are indebted to our distinguished friend, Dr. George C. Shattuck of Boston, who, as a token of respect and affection for the memory of him on whose like we shall rarely look again, has kindly presented the editor with a sufficient number of impressions to supply the journal.

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Original Essay.

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ART. I.—*An Eulogium on JOHN DOANE WELLS, M. D., late Professor of Anatomy in the University of Maryland, pronounced before the Medical Class of the University, October 29th, 1830. By N. R. Smith M. D., Professor of Surgery &c.*

THE opening of the last course of scientific instruction in these halls, was attended with circumstances of peculiar and anxious interest. In the person of our lamented Davidge, death had struck from our hemisphere a luminary of no ordinary lustre, though then verging to the western horizon. On that occurrence, the friends and patrons of the University of Maryland were filled with painful solicitude, in regard to the choice of an individual who should be adequate to discharge the duties of so important a trust. At length, after mature deliberation, a selection was made. One personally a stranger to almost every individual in this community, succeeded to the vacant chair. He had but few friends to urge his claims, or solicit favor—his own good name was the strong and faithful advocate, that achieved for him the honorable distinction. It was the golden opinion which he had elsewhere won from all who

knew him, which purchased for him the good will of those who confer the honors of our institution.

One year ago, at this hour, in this hall, and at this desk from which I now address you, he presented himself as a candidate for your favor. Pallid from disease and recent toil, oppressed with anxiety in regard to the reception which might be awarded to a stranger, young in years, and more modest than young, he appeared before an audience in which he would have looked in vain for the cheering sympathy of a single face which he had ever before beheld. Well do those who were then present recollect the interest of the moment. He stood before you on trial for reputation, which, to the generous aspirant, is dearer than life. But it was not merely for himself that our young champion stood forth upon that occasion;—his success was necessary to vindicate the efforts which his friends had made in his behalf—it was absolutely essential to the prosperity of an institution which claimed an elevated rank, and from which was expected extensive usefulness. He well knew that, should he not meet the public expectation, his friends and the institution would suffer almost irreparable injury.

Well do you recollect the kindling of his expressive eye, when, in the progress of his discourse, he grew animated in the cause of science. Well do you remember the rich intonations of a voice, which won the ear, the understanding and the heart. Alas! that eye is now extinguished forever, forever silent that familiar voice. That heart which throbbed with grateful emotion, on beholding the hospitable, kind, and respectful attention, with which you cheered his efforts, is now, with all its generous and open vessels, compressed into a clod of the valley.—Death, who ever loves a shining mark, has struck from our horizon the bright morning star, just as it began to shed its quickening beams among us.

Because I had longer known our lamented friend, and was more familiar with the events of his brief career, to me has been assigned, by my associates, the melancholy task of paying this last sad tribute to his memory. I come not here to

grieve the spirit of the illustrious dead with the fulsome phrase of flattery, and yet I fear that those who knew not the subject of my sketch, may regard the plain unvarnished truth, as the common form of eulogy. We believe that there is that which will "sooth the dull cold ear of death," which will "wake the silent dust;" but it is not "the note of praise," nor is it "honor's voice," however triumphant may be the strain. Those who have known our friend are well aware that here there is no occasion for exaggerated expressions. Happily for me no effort of the imagination—no rhetorical display, is necessary to give interest to that which I attempt;—the interest is in the character of my subject. All that I am ambitious to achieve, and it is more than I can accomplish, is to present a just and graphic sketch of the superiority of intellect, and the moral loveliness, displayed in the character of our departed Wells.

John Doane Wells, late Professor of Anatomy in the University of Maryland, was the eldest son of an intelligent and pious clergyman of the city of Boston, and was born on the 6th of March, 1799. In his early years, he suffered a calamity, than which none more severe can occur to youth, in the death of his father; but, fortunately, providence had spared to him the watchful guardianship of a mother whose heart and understanding amply qualified her to place him in the path which ultimately lead to eminence and usefulness. His early education was systematic and complete, but I am not aware that in the acquisition of it he enjoyed peculiar advantages. In 1817, he received the degree of Bachelor of Arts from the University of Cambridge. He then immediately commenced the study of Medicine; and this department of science having been his spontaneous choice, we may presume that he possessed for it a native predilection.

Much of the ardor and success with which Wells cultivated the medical sciences is undoubtedly to be ascribed to the example and precepts of his distinguished instructor, Dr. George C. Shattuck, of Boston, than whom but few in our country occupy a higher professional rank.

In Dr. Shattuck's office, there were at that time several young gentlemen, who were distinguished for their zeal in the pursuit of science. It was the custom for some one of them occasionally to attempt something in the form of a demonstration or lecture, in presence of his associates. Nothing could be more admirably calculated than the emulation thus excited, to develop the germs of talent, and to acquaint one's self with the character of his own native powers. This is a circumstance in the history of the intellectual career of our friend, which we would impress upon the mind of every pupil, and of every teacher.— Whatever may be supposed to contribute an important influence in rendering men great or good, like him of whom I speak, deserves to be written in letters of gold, and to be fixed on the portals of the temple of fame, that it may be read from afar.— Let the example of Wells suggest to us the employment of similar culture for the youthful mind, that it may one day produce fruits equally rich and abundant. In those early essays our friend was distinguished for industry of preparation, perspicuity of language, ease and elegance of expression.

I learn from my friend Dr. Shattuck, that, during his pupilage, Wells was greatly distinguished, for untiring assiduity, perfect docility, the ease with which he acquired knowledge, and the judgment with which he selected it. The fund of information which he then treasured up, and subsequently used with so much effect, shows that he was equally remarkable for tenacity of memory. And here let me remark that the secret of a faithful memory was in him clearly revealed. It was shown to be, not that supposed passive quality of the mind which renders it equally tenacious of "trivial fond records," and of great and interesting truths. No individual who devotes himself to science with the ardor that Wells evinced, will ever complain of the treasons of memory. The facts which he learns are delightful to the intellectual eye, and they are remembered for the same reason, that the joyous scenes of our youth are not forgotten, even when events of yesterday fade from the mind.

That Wells accomplished far more during the period of his

pupilage, than is ordinarily done, is obvious, from the fact, that to him there occurred none of that period of leisure which most young men enjoy after having completed their professional studies, before they engage in the busy scenes of life. Our friend obtained his degree of Doctor of Medicine, from Harvard University, in 1820, and immediately after, he was called upon to discharge the active and responsible duties of a public station. It was in the spring of the following year that the Medical Department of Bowdoin College was first organized. Dr. Nathan Smith, late Professor of Surgery in Yale College, had yielded to the solicitations of his friends, President Allen and Professor Cleaveland, to assist them for a few weeks in the infancy of their enterprise, when not engaged in the discharge of his duties at New Haven. It not being convenient to fill at once the two chairs of Surgery and Anatomy, Professor Smith consented for a time to discharge the laborious duties of both departments. That he might do so with advantage to the pupils of the institution, he wrote to his friend Dr. Shattuck of Boston, to name to him some individual qualified to assist him as demonstrator of Anatomy. Although Wells was then but 21 years of age, and had just completed the period of his pupillage, Dr. Shattuck recommended him with perfect confidence as an individual every way qualified to aid his friend in his laborious undertaking. Dr. Wells assented to the proposition.— On repairing to Brunswick he found that in consequence of an unforeseen event Professor Smith had not arrived, and that he was not expected to be present for some days. The Medical class, however, had assembled—the day, appointed for the commencement of the course, had arrived and it was necessary that the pledge of the institution, given in its advertisement, should be redeemed. This could not be done if the important duties of the chairs of Anatomy and Surgery were both to remain undischarged, even for a day. In this distressing dilemma the President called upon Dr. Wells and requested that he would immediately commence the course on Anatomy.

It is difficult to conceive of a situation calculated to try more

severely the fortitude of a modest man, than that in which Dr. Wells then found himself. The institution, in whose service he had engaged, was placed in a situation of extreme embarrassment and perplexity, from which it could alone be rescued by the single-handed efforts of one who had scarcely yet reached the maturity of manhood—of one whose years were probably less than those of most of the individuals who were assembled to listen to his instructions. He had never yet made the slightest essay of his strength before a public auditory and well knew that, under whatever circumstances he might appear, there must be some in every audience disposed to criticise censoriously. For a few days, he must necessarily be the only object on which the public eye was fixed. Should he fail, as many young men of distinguished abilities might have done, in so peculiar a situation, his sensitive and virtuous ambition would suffer a blow from which it might never recover. The page of history is every where adorned with the names of individuals, who have stood firm in the hour of danger, who have shed their blood, and sacrificed life, with a cheek that never blanched, and an eye that never wavered. But this is often a mere physical courage, a quality of the body, which circulates in our veins and is wrought into our nerves. It is a quality which too frequently graces a bad cause, in which no moral intrepidity is brought to sustain it. It is a quality of our organization which we enjoy in common with the lower orders of the creation. In the perilous situation, in which our young friend then found himself, there was danger neither to life or limb, and yet there was that impending, which, to one of sensitive ambition and generous aspirations, was infinitely more appalling. An occasion rarely occurs in the life of any individual which requires the exercise of so great a degree of moral courage and resolution, as was displayed by our intrepid friend. On the day which had been announced he was found at his post, and there acquitted himself in such a manner that it became manifest to every one, that he was born to be an ornament to his new vocation.

Dr. Smith, on his arrival, learned with pleasure the favour with which the efforts of his young assistant had been regarded, and during the progress of the course, often called upon him to perform the duties of a lecturer. These, as well as all the manual labor pertaining to this department, he discharged with singular alacrity, and surprising ability.

Before Dr. Wells had engaged to assist in the first course at Bowdoin, he had long had in contemplation a voyage to Europe, and a year's residence in some one of those populous cities, in which multiplied forms of human misery and suffering, furnish a melancholy but instructive school for the improvement of the medical philanthropist. It is evident from this circumstance (for his pecuniary means were limited) that his ambition was of an elevated and liberal character. "I had always," (said he to me, during one of the last interviews which I had with him) "from the hour that I entered College, resolved, that on completing my professional education at home, I would spend the little patrimony which might remain to me; in seeking the best sources of knowledge that the world affords." Undoubtedly he knew full well that wisdom is rarely purchased at too dear a rate. He knew full well that knowledge is both wealth and power, and that he who casts his bread upon the waters of wisdom, shall surely find it after many days. Most young men on achieving the flattering approbation which was awarded to Wells at Brunswick, would have been diverted from such a purpose, content with having done well, and with the certainty of being able to render satisfaction in his particular department. But our young friend was not to be allured from his long cherished purpose by the golden apples which fortune thus cast at his feet, at the very beginning of his career. Wells' ambition was of a nobler character,—it was a refined sentiment. I never knew an individual who possessed a more delicate sense of responsibility than our departed friend. It was this which made his ambition a christian quality, at the same time that it rendered it intense and constant. No consideration on earth would have induced him to engage in the business of medical instruction, with-

qualifying himself so as to discharge his duty toward medical pupils, as to wash his hands of the blood of those whom ignorance and unskilfulness too often bring to an early grave. It was this, and not merely a vain avidity for popular applause, that inspired him with untiring zeal—that took him from his native shores, not to view the splendor of courts, and gaze on the magnificence of kings, or even to indulge in the more rational pleasure of contemplating the reliques of antiquity, and the monuments of art, but to toil in the abodes of wretchedness, to render himself painfully familiar with all the variety of suffering which has become the patrimony of our race—to walk the hospitals by day, and toil in his closet by night.

Alas, would to God that this sense of responsibility, this dread of doing less than his duty, had been less acute; would to God that his generous emulation had been content that he should be a little less transcendant! Even then, he might have risen to the summit of his profession, and at this moment would perhaps have stood before you, the pride of his country, and the ornament of our school.

It was in the summer of 1821 that he took up his residence in Paris, and I know from one who witnessed the zeal with which he devoted himself to science, that what I have stated in general terms, in regard to the manner in which his time was there employed, is literally correct. He listened to the learned and eloquent professors of that city, with that kind of interest which is felt only by those who are resolved themselves to become learned and eloquent. But his time was chiefly devoted to practical and didactic Anatomy, for this was the department to which both native taste, and adventitious circumstances seemed to have devoted him; and in Paris, undoubtedly, this fundamental branch of medical science, is taught under more favorable auspices, than in any other school of science in the world.

While he was engaged in Paris, the Trustees of the University of Maine entered upon the election of a Professor of Anatomy. Wells was not then expected to return for more than a year; it was impossible, therefore, for the institution to avail

itself of his labors during the ensuing course. He was but just bordering upon the age of manhood—extremely youthful in his appearance, and as yet almost wholly unknown to the medical world. And yet, notwithstanding these unfavourable circumstances, and although he had left behind him nothing but his own good name, and the unsolicited offices of those who admired his virtues and his talents to aid him in the canvass, he was unanimously elected to the vacant chair. Such a result was equally creditable to Professor Wells and to the enlightened body who discerned and appreciated his sterling worth. Perhaps there is nothing in which men in public stations can render more essential service to their country, than in searching out and elevating to its proper sphere modest retiring merit. Real worth is rarely obtrusive, and if those who have the gift of the rewards “which make ambition virtue” heed the importunities of the vain and arrogant, more than the silent, dignified desert of the few who will not truckle for favor, they little know the chilling, repulsive influence which they thus cast upon the efforts of those who might be truly great. Genius drops her hands in despair, when she sees the wreath which has been the end of all her hopes, the reward of all her toils, converted into a toy, by being conferred upon the brow of folly and presumption.—What member of that honorable board who elected our friend, will not be proud to declare, when he hears his eulogium uttered from one extreme of our country to the other, I was one of those who gave to the world the talents and virtues of that talented and virtuous man, by early appreciating his worth, and raising him to a post of honor and usefulness? For myself I will declare that had Wells been spared to us, to fill the measure of his fame, and to elevate the character of our school of science, I should regard the exercise of the little influence which I may have had, in contributing to place him in a sphere of more extended usefulness, as an act ever to be remembered with pleasure and with pride.

On learning the welcome intelligence of his appointment, the youthful professor by no means conceived that the end of his

ambition was accomplished. He well knew that those appointments which confer honor upon the meritorious, only heap disgrace upon the unworthy, and that the individual who is raised to an elevated station has his demerits, as well as his merits, rendered a thousand times more conspicuous. These considerations had the effect to multiply his exertions. Soon after his appointment, Professor Wells was charged with important commissions to be executed for the benefit of the institution of which he was now a part. He was furnished with funds derived from the liberality of the State, for the purpose of procuring the nucleus of an anatomical museum and a library. The valuable collections which the halls of the Bowdoin University exhibit will be lasting monuments of the faithfulness and ability with which he discharged this important trust. Although the medical department of that institution is one of the most recent in our country, yet it exhibits a library which is probably superior, with one exception, to that of any other medical seminary in our country. The first selections were made by Professor Wells, and so also were the arrangements by which additions have subsequently been made, of all the recent valuable publications. The Anatomical collection of Bowdoin is perhaps in the same degree superior. It was Wells who selected that valuable part of it which was purchased abroad, and many of the more recent preparations are the work of his own hands.

In executing these commissions and for his own improvement, Professor Wells visited several of the most important cities of the continent, and spent, to valuable purpose, considerable time in the English capital; every where making all other objects subservient to the primary one of improvement in practical and physiological Anatomy. Let it not be supposed, however, that our friend derived no other species of improvement than this. His attention was sufficiently directed to the collateral branches of medical science to render him more than respectable in every department of knowledge pertaining to the healing art. In his hours of leisure (for his recreations were scientific) he was

particularly fond of occasionally devoting his attention to Chemistry and Mineralogy. By his intimacy with his distinguished associate, Professor Parker Cleveland, so eminent as an author and teacher in these departments, it was to be expected that he should acquire a fondness for their cultivation.

Nor is it to be supposed that one possessed of native taste, and imbued with classic learning, could view those scenes which have been hallowed by the great of other ages, and where the human mind has left those proud monuments which render it all but immortal, and not experience the influence of that which ripens the scholar and accomplishes the man. Although duty and inclination rendered one object dear to his heart, yet his eye was not closed against the fair variety of things which surround the path of the observing traveller, nor was the tablet of his memory shut against any thing which science loves to record.

At length, his commission sbeing performed, and the desirable attainments made, Professor Wells returned to his native country, in the winter of 1823, having been absent about eighteen months. The institution with which he was connected had endured the inconvenience resulting from the vacancy of the chair during the period of his absence, and well was it recompensed by the fund of information which he had been accumulating for its benefit. He immediately assumed the entire control of the Anatomical department, which he conducted with increasing reputation to the time of his death.

While connected with the University of Maine, Professor Wells still continued to reside, during the greater part of the year in the city of Boston, for there, opportunities for the cultivation of his favorite science were more perfect, and there too the field for the exercise of the practical duties of his profession was more extended.

Although the school in which he labored was recent, and located in a region neither populous nor much frequented, and although he was for nothing more remarkable than for the unostentatious manner in which he kept the noiseless tenor

way, yet his good name passed rapidly from mouth to mouth, and soon became generally known in that section of our country. A proof of this we have in the fact that on the occurrence of a vacancy in the Anatomical chair of the Berkshire Medical Institution, in Massachusetts, which is more than 200 miles from the scene of his early labors, he was earnestly solicited to accept the appointment of lecturer in that institution.— At Berkshire, the medical course was accomplished during the autumn and early winter months; but in Brunswick it did not commence till the 1st of March. This rendered the duties of the two chairs compatible with each other, and as his practice in Boston was already much interfered with by his engagements at Bowdoin, he yielded to the solicitations of his friends, and resolved for a few years to devote himself exclusively to the business of medical instruction. It was in the autumn of 1826 that he accepted the appointment at Berkshire, and from that time, till he was appointed to the chair of Anatomy in the University of Maryland, he continued to lecture alternately at Berkshire in the autumn, and at Brunswick in the spring. During the last year or two of his labors in the former institution, he taught both Anatomy and Surgery. The ability and success with which he labored to build up these two infant institutions is manifest in the almost unprecedented rapidity of their increase. The last year that he gave a complete course at Bowdoin, he taught a class of one hundred pupils, and I believe that the number of those who listened to him at Berkshire was still greater. No medical institution can flourish in which the duties of the chair of Anatomy are not discharged with talent, industry, and zeal. But we need not resort to this circumstantial proof of the success of our friend. We have abundant evidence that wherever he taught, he inspired the same kindling enthusiasm which many of my auditors have felt, when listening to the instructive and persuasive eloquence of that voice which it is hard to realize that we shall hear no more forever. In the language of one of his eastern associates, he became the pride and ornament of both the institutions in which he taught.

Among medical teachers he became the observed of all observers; the one whom all others desired most to resemble. Year after year the knowledge of his unobtrusive worth diffused itself through our community, like the circling wavelets which the falling pebble raises on the surface of a tranquil lake.

I have already alluded to the melancholy event which, in the summer of 1829, caused a vacancy in the Anatomical department of the University of Maryland. The recovery of the previous incumbent having, from the fatal illness with which he had for a long time suffered, been almost completely despaired of, the members of the Faculty of Physick were particularly interested in the reputation of such individuals as were distinguished in that department, and who might perhaps become candidates for the vacant chair. On the death of Professor Davidge, therefore, intelligence had been received in relation to many individuals who were distinguished as teachers of Anatomy. Eminent individuals in our own city, having declined to engage in the duties of so laborious a trust, the attention of many was then immediately directed to Professor Wells, whose bright and stainless fame had come to us from afar. He was nominated as a candidate for the vacant chair, it having first been ascertained from himself, that such a measure would be agreeable to his wishes. To his honor, let it be recorded, however, that he steadfastly declined all engagements which should interfere with the duties which he was then discharging toward those institutions which had been the nurseries of his early fame. Duty was to him paramount to the brightest honours, and the richest emoluments. From the first he declared that he could accept no appointment, except on the condition that he should be allowed to complete his course at Berkshire, and to deliver another at Bowdoin after he should have fulfilled his engagements in Baltimore, thus giving those institutions ample time to supply the vacancies produced by his resignation.

When it was suggested to Professor Wells that, in consequence of the late period at which the appointment must necessarily be made, and because the board of trust was till then un-

acquainted even with the names of many of the candidates, a temporary appointment merely would probably be made for the ensuing course, the tone of his reply was precisely that which we should expect from one whose soul was imbued with the highest sense of honor, and who was modestly conscious of talent, and qualifications of a superior order.

"Whether," said he, "the appointment about to be made be temporary or permanent, is to me a matter of but little moment. Should I be honoured with a permanent appointment, I should accept it only to resign it immediately, unless the satisfaction which I might render should be such as would render a temporary appointment a permanent one. I believe that I have never yet been a burden to any institution, and I have no desire to fasten myself upon yours by any irrevocable engagement. The probationary appointment I much prefer, and desire that, when the labors of the winter shall have been accomplished, each party may be considered as altogether unplugged, and perfectly free to act for their respective interests."

This magnanimous course confirmed the favorable impressions which we had before received in relation to our candidate. It was the independant decision of an honest man, and of one modestly confident in that intellectual strength, which had been so often put to the test. It was the decision of one who had no desire to palm himself off for more than the current value which belonged to his intrinsic worth, and which the God of nature had stamped upon his soul.

Such an understanding having been established between the candidate and his friends in this city, it became necessary that his qualifications should be made known to the Trustees of the University. Professor Wells was then at Brunswick, and neither leisure, nor his sense of propriety, would suffer him personally to solicit commendatory letters, and the good offices of the influential in his behalf. He wrote, however, to a confidential friend in Boston, where he was best known, to procure and transmit to Baltimore, such credentials as his reputation might command. Accordingly, numerous letters from distinguished

individuals were procured—letters the very phraseology of which clearly shows that they were not obtained by importunity. Among the distinguished individuals who bore testimony to the high reputation and ample qualifications of Professor Wells, were the Hon. Daniel Webster, of Boston, Chief Justice Parker, President Quincy, and Judge Story. Some of the gentlemen who wrote were not personally acquainted with Wells, but knew his established reputation sufficiently well to speak with confidence and without reserve. It is true, indeed, that commendatory letters are obtained with so much facility among us, and are expressed in a phraseology so set and uniform, that with men of discernment, they often have but little weight.—A small degree of acumen, however, will enable one to discover by the tone of the credential, whether the writer yielded to importunity, or wrote with a willing heart and hand. This sometimes is as manifest as if the writer had interlined his expressions in sympathetic ink, with, “this I am importuned to write;” or, “this I speak sincerely and give with it my warmest good wishes.” The letters which were presented by the friends of Professor Wells carried with them, in a remarkable degree, the internal evidence of earnestness and sincerity. They were letters which no man could read without being persuaded that the writers spoke of an individual of no common qualifications.

At length the day of the election arrived, and Professor Wells was duly appointed lecturer for the ensuing session. At the time of this occurrence he was in the midst of his course at Berkshire. He had there for some time been lecturing twice daily, for the purpose of completing his course at an early period, in the event of his appointment at Baltimore. On receiving intelligence of this, for the purpose of leaving behind him nothing but the most favorable impressions, he labored with almost unprecedented energy to redeem his pledge of honor where he was then engaged. He often gave three lectures daily, besides performing the greater part of the laborious preparation which is necessary in that department. Such was the zeal of his assiduity, such his delicate sense of responsibility,

that even then his willing and untiring spirit, had begun to prey upon his weak and perishable frame.

Although the course at Berkshire was not to be concluded for some weeks after the commencement of the session at Baltimore, yet the pupils to whom he was then lecturing, grateful for the fidelity with which he discharged his last duties to them, at a meeting held for the purpose, passed an unanimous resolution, releasing him from his unequalled labors, and giving him time to repair to Baltimore in season to be present at the commencement of our course.

This spontaneous expression was no ordinary act of self-denial, for the more he was admired as a lecturer, the more reluctant of course would they be to relinquish his valuable instructions. But highly as he was revered by them, for his eloquence and learning, he was more ardently beloved for the purity of his heart—his noble, generous sentiments, and that suavity of manner, that only true politeness which is based upon benevolence. For his advantage, and that his splendid abilities might illumine a wider sphere, they cheerfully relinquished him to us. For themselves they lamented much; for him they rejoiced more. Worn down as he was by intellectual toil, Professor Wells was scarcely in a condition to endure the fatigues of a journey to Baltimore. While on his way to this city, he was confined by sudden and severe illness in New York, and was all but lost to us at that time. Our anxiety in relation to him, was in some measure relieved, by his arrival in this city, on the 29th of October, this very evening a year. Yet still, he was languid and feeble, from recent disease and fatigue, to that degree, that every one who looked upon him was alarmed for his safety. His indomitable resolution, however, was still the same, and his untiring intellect compelled to action the enfeebled organs of a delicate frame.

Need I tell the brief story of his bright career among us? No! You that have listened to the eloquence of his lips and have reapt the fruits of his labors, have already anticipated even more than I could express. Suffice it to say that he had scarce-

ly opened his lips in our halls, when the friends of our University were seen to smile with exultation and delight. Notwithstanding the modesty of his address, there was diffused around him that halo of intellectual light, which marked him out to every observer, as one of that choice class, whose visits to us are but few and far between.

The history of American medical literature furnishes no parallel to the splendid success which, in these halls, was achieved by him of whom I speak. His lectures were attended by many individuals, who had listened to the most eloquent medical teachers both in this country and abroad, and I believe that they were unanimous in placing him in the very first class of the eloquent and learned. Envy herself was dumb, nor even dared with faint praise to condemn. When his course was at length completed, I am persuaded that there was not an individual of his class, who would not have preferred him as a teacher of anatomy, to any other individual of whose qualifications they had any knowledge. Indeed, such a sentiment was unanimously and spontaneously expressed by his pupils, before his departure from Baltimore, and also in the most decided language, by the Medical Faculty of the University.

His valedictory words on dismissing his class in February last, made an impression on the minds of his auditory which reiteration by me would neither heighten nor diminish. There was in them an implied presentiment of his early fate, and they cast an ominous gloom over our horizon, in which our star of promise was at length merged for ever.

On the 25th of February, Professor Wells bade us an eternal adieu, and hastened to the performance of other and laborious duties. His journey from this to Brunswick, in Maine, was performed at an inclement season of the year, and the whole distance by land, over rough roads, and with scarcely an hour's repose. When he had reached his place of destination, the ravages of disease were but too plainly visible. Still unquelled, however, was the spirit of the great and good, and without a day's repose, he began his labors anew. So feeble had he at

this time become, that he was obliged to be carried to the chair from which he taught, and was only sustained in his task by that mental exhilaration which he never failed both to feel himself, and to diffuse around him, when he opened his lips to teach. In a few days, however, frail nature sunk beneath the effort.—Disease prevailed over resolution, and he was compelled to yield himself to the will of his physician. He then suffered an aggravation of disease which had almost proved fatal. During its continuance he wrote to his friend Professor Lincoln, now his successor in the chair of Anatomy in this institution, then resident at Burlington, in Vermont, to request that he would come to Brunswick, and discharge for him those duties which he had abandoned with so much reluctance. His friend promptly repaired to his aid, and Professor Wells, while languishing upon his bed of pain, had the consoling satisfaction, that the duties which he was never again to discharge, were performed by one trained up by himself—his pupil—friend, and brother—performed too in a manner which fully redeemed the pledge which he himself had given, and relieved his mind of its last source of anxiety.

When the course was completed at Brunswick, our friend, who had in some degree recovered from the more urgent symptoms of his attack, travelled by water to Boston. Stricken to the heart, and conscious of his fate, he fled from the world, and when science and skill had failed to save, he sought, mid the scenes of his childhood, the balm of maternal tenderness, which never fails to sooth, even when it cannot heal.

Soon after his reaching Boston, there occurred an aggravation of symptoms, indicating disease of the brain. It was then that we first heard of his alarming illness, and from the statement of his case received, abandoned nearly all hope of his recovery. He lingered till July 25th, and at peace with God and man, resigned his spirit into the hands of him who gave it.

The acts of a man's life display his character.—By their fruits ye know them. It is easy then for every one from the facts in his history which I have stated, to form a just concep-

tion of the moral and intellectual traits of him of whom I speak.

It is surprising in the extreme that one possessed of such remarkable energy of character, should have been so little under the influence of passion. Generous and amiable sentiments alone asserted their sway over his soul. Let it not be supposed that worldly wisdom was the sole basis of so perfect a character; his moral qualities were deeply rooted in christian faith, and drank their nourishment from the well of life.

The amiable and conciliatory address of our beloved associate, ever won friends which his moral worth never suffered him to lose. So cautious was he in all his complicated relations with society, to avoid inflicting even an inadvertent injury, that if I were to ask with a voice loud enough to be heard wherever he was known, where are the enemies of Wells? echo would answer—where?

Let the ambitious study the character of Wells to learn the secret art of excelling others, without creating to themselves enemies. Envy itself was transformed into love, in contemplating the goodness of his heart. No one seemed ever to regret that he was surpassed by Wells. He trod so lightly on our shoulders in mounting above our heads, that none even felt the *desire* to drag him down from his well earned eminence. If we must be excelled, he of all others was the man by whom we would wish to be surpassed. As he was our friend, we lamented him;—as he was fortunate we rejoiced at it;—as he was talented, we honored him; and although he was *ambitious*, none sought to mar the beauty of his fame. *There* were tears for his love;—joy for his fortune; honor for his talent, and admiration for his virtuous ambition.

In vain should I attempt to sketch with faithfulness, the traits of his superior intellect. That it was of an exalted order, the unprecedented honors which he achieved is presumptive evidence. There was no particular attribute of his understanding, which particularly stood forth in bold relief, at the expense of other qualities of the mind; and hence those who mistake eccentric-

city, or mental deformity, for genius, might have denied it to him. It would be difficult to say whether he was most distinguished for invention, for fancy, for judgment, or for memory. All these qualities he certainly possessed in an eminent degree, and they were so harmoniously blended in forming the man, that the symmetry of his mind stood before us like a beautiful Grecian Temple, the parts of which are so admirably proportioned and adjusted, that the eye wanders with delight over the whole, but is taken with no particular object. In fine, his was the scholar's eye, tongue, hand; and on him almost every excellence had fixed its seal, to give the world assurance of a man.

And here let me remark that Wells was for nothing more distinguished than for that most valuable, but too-often dispised talent, the capability of patient application. That he trusted not alone to native gifts, is sufficiently obvious from the fact that he fell a martyr to intellectual toil.

Gentlemen of the Medical Class, in what manner could I better usher you into the walks of science, than by presenting to your view an example so bright and admirable. Which of you would not desire to be like him whose portrait I have unworthily sketched. More or less so it is certainly in your power to become, for he, as you observe, relied not upon native endowments, being well aware that it is intellectual discipline which chiefly causes men so widely to differ from each other. Imitate him then in his career of virtue, fame, and usefulness. Strive to imitate him in thought, word, and deed—imitate him in all things. In all things did I say? no! not in all; I ask you not to sacrifice your lives to science, or to imitate him in his spirit of martyrdom. While you toil for that which he achieved, do not, like him, consign yourselves to a premature grave, but rather prefer to be less transcendent.

Let me not be understood, however, to declare that our lamented associate sacrificed his life on the altar of selfish ambition—no! it was that exquisite sensitiveness in relation to responsibility, which suffered him never to repose his head upon his pillow, while the smallest duty remained unaccomplished, and which at length consumed his vital spirit.

Unhappy Wells! while life was in its spring,  
 And thy young frame just waved her joyous wing,  
 The spoiler came, and all thy promise fair  
 Has sought the grave, to sleep for ever there.  
*Oh! what a noble mind was here undone,*  
*When Science' self destroyed her favorite son;*  
 Yes, she too much indulged thy fond pursuit;  
 She sowed the seed, but death has reap'd the fruit.  
 'Twas thine own genius gave the fatal blow,  
 And help'd to plant the wound that laid thee low.  
 So the struck eagle, stretched upon the plain,  
 No more through rolling clouds to soar again,  
 View'd his own feather on the fatal dart,  
 And winged the shaft that quivered in his heart.  
 Keen were his pangs, but keener far to feel,  
 He nursed the pinion that impelled the steel,  
 While the same plumage that had warmed his nest,  
 Drank the last life-drop of his bleeding breast."

When we behold the time-worn scholar, full of years and full of honors, like a shock of corn fully ripe, gathered to the tomb of his fathers, our sorrow is tempered with something of the joy of grief. We would not, if we could, confine them to earth, to linger through the decrepitude and imbecility of age, when a bright path is open to conduct them to the skies.

But alas! where is our consolation when manhood in its glory falls before the unseen destroyer.

The autumn wind rushing, wafts the leaves that are searest,  
 But our flower was in flushing, when blighting was nearest.

Yet let us not impiously repine. When our departed friend was chosen by us from an humbler station, the friends to whom he was then dear and useful, relinquished him to us, lamenting his loss, but rejoicing that their friend was raised to a sphere more nearly corresponding with his merits. Why then should we complain that his heavenly master hath need of him, and has called him in the midst of life and usefulness, and taken him from his earthly labors to higher and holier duties in the world of spirits? Let us then truly mourn the dead by doing as he would desire—by transferring our affections to his successor—his pupil, and his friend.

## Adversaria.

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*Newtown, Frederick County, Va.*

*October 14th, 1830.*

TO PROFESSOR SMITH,

*Dear Sir,*—I read with much pleasure your remarks in the last monthly Journal, upon the subject of Fractures of the Femur. It is an accident which so frequently presents itself to the notice of the country practitioner, and a deformity so frequently occurs, that all available means ought to be at the surgeon's command. If simplicity of structure, and adaptation to the ends to be attained, will recommend an apparatus to the surgeon, the one adverted to will be highly appreciated.

My opinion, as to the efficiency of this apparatus, is not based upon the simple fact of reading those remarks, but upon the exclusive management of, or the witnessing its application to, seven or eight cases. As you well recollect, several cases occurred under your management whilst I resided in the Baltimore Infirmary, and as my situation there enabled me to watch their progress with care, I feel myself better qualified to decide as to its merits.

That which I conceive the most interesting case which I have witnessed, recently came under my observation—a case of fracture of both thighs. A waggon heavily loaded with grain produced the accident; and the thighs being thrown immediately across the cut, were in the most favorable position for extensive mischief. The boy was about twelve years old. In one thigh, the fracture took place immediately below the

trochanter major; the other was lower down the shaft of the bone. The left femur was much shattered, communicating, upon the necessary manipulation, the sensation of several broken peices; the other was a simple transverse fracture.

Being hastily summoned, I found my patient about four miles from me, and about three from his master's residence. Something was immediately to be done to enable him to be carried home. Accordingly, as a temporary expedient, four or five short splints of thin board were hastily made, and adapted to the thigh. The bone being properly extended, the splints were laid around the thigh, and the whole well secured with a roller, he was then carried home on a litter. Having adjusted every thing, I hastened to a mechanic to have the apparatus, used by you in the Infirmary, made. Binder's board not being at hand, poplar plank, as the most convenient material, was made use of. There was nothing peculiar in its construction. When I returned to my patient, the question was whether I should remove the splints and bandages, put on for a temporary purpose. This I determined not to do—putting the apparatus over the whole, adjusting it well to the perinæum and knee, as upon its well fitting these parts depends much of the comfort and ease of the patient. It was then well secured with a roller. I very soon removed the splints from the under part and sides of the thigh, conceiving that the apparatus would be a sufficient support, but those upon the top of the thigh were retained, and, extended from the knee to the head of the thigh-bone. I thought that the retention of these splints had a very good effect, preventing the flexor muscles of the thigh acting upon either portion of the bone, and thereby producing deformity. Any motion laterally, or downwards, is effectually prevented by the apparatus, but the thigh being bound down only by the roller, this must become slack, and admit of muscular action; this is more effectually prevented by the splints. The apparatus well secured, as I have mentioned, admitted of motion of the hip upon the thigh, so that he was able, from the first, to be propped up. There in fact consists one of the excellencies of the apparatus

admitting of the motion of either extremity of the bone, while all the intervening portion is effectually guarded against displacement. If this be a desideratum, then the appending of the piece of iron to the upper part of the thigh-piece, and bandaging this to the body, if effectual, is at least unnecessary, as the splint would be otherwise more congenial to his feelings. When the neck of the thigh bone is fractured, then the piece of iron may be highly necessary.

The re-union of the bone in this case, was as rapid and perfect as possible, for one so extensively injured, and considering that he had the annoyance of an intense summer's heat to contend with. From the moment his thigh was placed in the splint, his sufferings were trivial; not even the entire loss of a night's rest occurred. My greatest fears were that the pieces of bone would excite inflammation and suppuration, but fortunately the broken fragments were placed in their proper relative situations, and united in the general process. The two legs are of the same length, with no deformity.

Yours respectfully,

GEORGE LYNN, Jr. M. D.

N. B. The above case was certainly managed with tact, as the result shows;—the Doctor's remarks are also judicious; but we think he does not properly appreciate the piece of the apparatus which attaches the splint to the body. We would request the attention of himself and others, to the remarks which we made in relation to its utility, in No. 8. N. R. S.

## Analytical Reviews.

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SELECTED FROM THE MEDICO-CHIRURGICAL REVIEW.

**ART. I.**—*A Practical Treatise on Diabetes : with Observations on the Tabes Diuretica, or Urinary Consumption, especially as it occurs in Children ; and on Urinary Fluxes in general. With an Appendix of Dissections and Cases, illustrative of a successful Mode of Treatment : and a Postscript of Practical Directions for examining the Urine in these Diseases. By Robert Venables, M. B. Physician to the Henley Dispensary, &c. &c.*

WE must accord to Dr. Venables the credit of great zeal in the prosecution of his profession, and possession of a very respectable quantum of talent for the attainment of his laudable objects. Attached to a public institution, he loses no opportunity of acquiring that knowledge, therapeutical and pathological, which cannot easily be got, except through the instrumentality of such asyls for the indigent portions of society—and what is still more praiseworthy, he freely communicates the results of his observations and researches to his brethren and the public at large. Such conduct deserves every encouragement, however defective may be the attempts of individuals to add to the common stock of our knowledge ; and the critic, who thoughtlessly deals out his strictures upon such undertakings, does not contribute to the public good, however he may plume himself on the superiority of his own penetration and acumen. It is much easier to criticise a book than write one, and the medical as well as the general reviewer should sometimes bear in mind the words of the great English satirist, when he dips his pen in gall :—

Let those judge others who themselves excell,  
And censuro freely who have written well.

Dr. Venables has undertaken a practical rather than literary history of diabetes ; and if any one is disposed to ask, has he

any thing new to introduce, to compensate for the trouble of reading his book, this is his answer—"I have presented him with two facts in the history of diabetes, which are certainly worthy of attention: first, that an excessive discharge of urine is frequently a cause of *tabes* in children: secondly, that phosphate of iron proves, when properly administered, almost as certain an astringent upon the excessive action of the kidneys, as opium upon that of the alimentary canal." These are facts which Dr. Venables avers that he has ascertained, and he has appended the history of several cases, in order that the reader may judge for himself.

Our author differs from some respectable authorities on the pathology of diabetes. He thinks we have no occasion to look to the sugar of vegetables separated in the stomach, to account for the saccharine properties of diabetic urine. "The morbid action of the kidneys is quite sufficient to account for the fact, and it is certainly infinitely more rational, and far more consistent with the doctrines of physiology, to attribute the evolution of sugar in the urine to a wrong or perverted action of the glands." Dr. V. has not attempted any division or subdivision of diabetes into the insipid, mellitic, serous, &c. The diabetes of the adult and of the child, as far as he is acquainted, arises from the same causes, and is to be treated in the same manner—hence there are no just grounds for division of the subject.

"There is a cause of emaciation among children, which has hitherto attracted but little of the attention of the Profession. I have often observed children to all appearance very healthy up to a certain period, when suddenly the constitution changes, the child emaciates, its health declines, and, without any obvious derangement sufficient to account for the gradual deprivation of health, at last dies a most miserable object. In such cases, the head, chest, and abdomen, present no morbid appearances sufficient to account for the wasting and gradual decline of health. Accident led me to a discovery of the real seat of disease in such cases; and when the history of the complaint has been submitted to the reader, he will not be surprised that its nature and seat should have so long escaped general observation.

"Several cases of wasting having presented themselves to me, in which I was unable to detect any serious or permanent derangement of function—vital or animal,—I was at a considerable loss to account for the phenomena, as well as to direct the treatment.—Occasionally the bowels were out of order, but their healthy functions were readily restored, without, however, any sensible effect upon the progress or severity of the disease. Sometimes dyspnoea attended, but evidently of a nervous nature; for the means which were applicable to the primary or secondary diseases of the head,

speedily subdued this symptom, when those directly applicable to pulmonary affections proved, when not injurious, wholly useless.— The head often seems to be the seat of disease, if we were to judge from the dull comatose state of the patient; but yet, upon dissection, the brain in many instances presented no diseased appearance whatever. In other cases, a partial but slight degree of vascularity has been observable, by no means, however, sufficient to account for the gradual, but commonly fatal, progress of the disease. From the tumid prominent abdomen, which generally, though not universally, prevails under these circumstances, we are naturally led to anticipate traces of disease in the alimentary tube, or some of the digestive organs. But dissection proves that our speculations are unfounded, for with the exception of flatus, which would of course account for the abdominal swelling, I have not been able to discover any other morbid appearances in these organs.— When flatus has not been discovered, some light thickening of the coats of the intestines may be observed, but in no way sufficient to account for the general symptoms.” 5.

Accident first led Dr. Venables to discover the real nature of the case. Upon one occasion he was given to understand that the different functions of the child were regularly and healthily performed. The head was free from pain, the respiration natural, the bowels free, and the secretions from them healthy. He was told there was nothing remarkable in the urine, but he found that it was discharged in very great abundance. This was not noticed, as it was attributed to the inordinate quantity of fluid taken in to satisfy the thirst, with which the little sufferer was harrassed. When our author had ascertained that the wasting of the body, in this case, was attended by an excessive discharge of urine, he had little difficulty in viewing them as cause and effect. On more minute examination he discovered diseased appearances in the kidneys sufficient to account for all the symptoms. He ventures to assert that many children have been treated for hydrocephalus, mesenteric affection, rickets, &c. who have really fallen victims to this form of disease. The urine of children is so little attended to, either by mother, nurse, or medical practitioner, that derangements of this secretion too often escape detection. Diabetes indeed is seldom observed in its incipient stage; and when it has made progress, it stimulates so many other diseases, that the real character of the complaint is not developed till its history is either wholly lost, or so confounded with symptomatic or secondary affections, that it can no longer be unravelled. Our author next proceeds to a graphic description of the disease, more especially as it affects children; and this being among the most original portions of the volume, our quotations shall be more free than usual.

"The disease seldom if ever appears till after the child has been weaned. The reason of this, perhaps, is, that the exciting causes are seldom applied till after this period. A child which has continued healthy up to this time, will perhaps suddenly lose its usual flow of spirits, become dull and inactive, and although no obvious disease may be recognisable, yet the child will not appear in its usual health. It begins after a very little time to waste in flesh and then gradually continues to emaciate. The skin becomes harsh, dry, and flabby, and seems to hang loosely about the body. The temperature is generally very much elevated, and, in the description of nurses, it will be said that 'they burn like a coal of fire.'

"In the early stages of the disease, the bowels are regular, and little or no deviation from the natural and healthy appearance of the alvine discharges is remarkable. The tongue also at the beginning indicates no symptom of disease, but when it has continued for some time, and produced some degree of fever, then the tongue becomes covered with a coat of mucus. After a continuance, the bowels begin to act irregularly, the appearance of the evacuations deviating from that of health. Sometimes they are of a greenish hue, at other times they appear natural when passed, but become greenish some time after being voided. In adult cases, constipation very generally attends.

"At a more advanced period, the abdomen seems preternaturally full and distended. The abdominal prominence frequently leads to the supposition of mesenteric disease, an opinion which is still farther confirmed by the progress of emaciation. I doubt much if the mercurial purges, which are exhibited under such circumstances, be wholly innocent. I have some reason to suspect that they have done considerable harm.

"The pulse from the first is generally accelerated, and has a hard, wiry feel. Those who are much in the habit of examining the pulse in children, would recognise in the sensation which the pulse at this time gives, an indication of very great irritation in the vascular system.

"The most remarkable symptom, however, although it frequently escapes observation, is the inordinate discharge of urine. This discharge increases in quantity so gradually, that it is not usually noticed. By the time it has become more remarkable, great thirst prevails, and hence it is neglected or unnoticed, because the parents and friends conceive an excessive discharge of urine, and an excessive consumption of fluid, as naturally associated.

"With respect to the qualities of the urine, they will be found to vary in different cases. In some, the urine appears quite limpid; in others, it appears milky, or like a mixture of chalk and water.— Sometimes it is of a pale straw colour; and in a case which is at this moment under my care, I find it is of a green colour. The urine sometimes seems milky, dense, and its specific gravity is much increased. It frequently coagulates by heat, or by the addition of the

different reagents When the quantity of coagulable matter bears any thing like an equal ratio to the watery portion of the urine, and the discharge is increased, the emaciation under such circumstances proceeds rapidly and extensively.

"As the duration of the disease is prolonged, other symptoms, proportioned in some degree to its severity, set in. Frequently the sensorium becomes affected at an advanced stage; hence headach, vertigo, and even temporary delirium, occasionally attend. When a fatal termination takes place, the patient often dies comatose, and sometimes apoplectic.

"The skin is usually dry and harsh to the touch, and this whether there be fever or not. Generally, however, at an advanced period, there is a considerable degree of fever. As the disease advances, the patient is attacked with remittent fever, occasionally accompanied with profuse perspiration at night. This fever has been regarded as partaking of the character of hectic; and should any cough, with or without expectoration, be present, (by no means an unfrequent occurrence,) the patient may be considered as labouring under phthisis, instances of which I have occasionally seen.

"When diabetes has continued for a long period, it frequently terminates in anasarca or general dropsy. Hence the ancles become œdematous, and the patient, from having been reduced to nearly a skeleton by emaciation, becomes bloated from the accumulation of dropsical fluid in the cellular membrane.

"In children, about this period, the abdomen becomes sensibly enlarged. This enlargement, by a careless observer, may be mistaken for ascites, or some mesenteric affection. Ascites frequently supervenes in adults, but more rarely in children. Disease of the mesentery is to be regarded as an adventitious rather than an essential occurrence." 16.

In diabetes the digestive function is, of all others, the most liable to disorder. Dr. Venables thinks it the consequence rather than the cause of the diabetes.

### *Morbid Anatomy.*

This our author confines to the kidneys and urinary organs. He avers that "diabetes never exists to any extent, without the kidneys presenting on dissection manifest changes."

"These changes vary from a trifling vascularity to severe organic derangement. Sometimes the kidneys are much inflamed, and present a florid vascular appearance, in other cases the venous system of these organs seems enlarged and turgid with blood. In a case which I examined about five years ago, the kidneys were enlarged in size, dark-coloured, and seemed turgid with blood. On cutting into the substance, there was an instantaneous effusion of fluid dark

coloured blood, as happens when a congested liver is cut into.— Sometimes the veins, on their external surface, form a complete network of vessels. In some cases the kidneys are found in a loose, flabby state, being at the same time much increased beyond their ordinary size. They are often of a pale or ash-colour.

“In some instances the substance of the kidneys is much inflamed, and then they present an appearance of a high degree of arterial vascularity.—Their substance feels dense, and their structure firm. Frequently, under such circumstances, a whitish fluid resembling pus is found secreted in some quantity in the infundibula.

“The kidneys do not often contain abscesses, but I have seen two cases in which they were ulcerated. In these cases, the pus occasionally passed with the urine and was mistaken for flakes of coagulable lymph, which it very much resembled. The ureters are often enlarged in diameter; and a respected medical friend informed me, that he once saw a case in which the internal surface of one ureter was ulcerated. It is natural enough to expect that these vessels should be enlarged in such a disease; but I have not met with a case of ulceration. This, however, may have been owing to my not having been prepared to expect, and, consequently, not having uniformly looked for such an effect. The renal or emulgent arteries are very often found larger in diameter than natural. Generally speaking, both kidneys are diseased, but sometimes only one, or at least only one to any great extent.

“The bladder is sometimes found rather vascular, and turgid on its mucous surface; sometimes the mucous surface is inflamed. The substance of this organ, is, in some cases thickened, and very firm in its texture. I saw a case, which was examined by an eminent surgeon\* in Dublin, about fifteen or sixteen years ago, in which the mucous coat of the bladder was tuberculated, and elevated into large, thickened, hard, and irregular plicæ. In several spots it was exulcerated, and, in this case, I learned that there was frequently a considerable discharge of sanio-purulent urine.

“There are diseased appearances occasionally observed in the other viscera, as the brain, lungs, heart, liver, spleen, pancreas, and the other digestive organs; but, as a great variety of these occur, and as diabetes frequently prevails without as well as with them, and sometimes with one description, and sometimes with another,—they are to be regarded rather as accidental occurrence, than as absolutely and essentially a part of the morbid anatomy of the disease, and therefore their consideration have no place here.” 20.

#### *Remote Causes.*

Among these our author ranks all those agents which inordinately stimulate the kidneys, as spirituous liquors, excesses in acids, alkalies, strong diuretics, mercurial courses, eruptive dis-

\* Mr Peter Harkan.

eases, particular articles of diet, as asparagus, foreign acescent wines, intemperance of every kind, inordinate bodily exertions, blows upon the loins and region of the kidneys, strong mental emotions, hereditary disposition depending on peculiar structure of the kidneys, derangement of the digestive organs, though not so frequently as Dr. Rollo would wish us to believe.

*Immediate Causes.* Dissection, according to our author, has shewn that this disease is invariably attended with some manifest change in the *structure* of the kidneys, and hence he thinks that a mere functional disorder is hardly adequate to the production of the permanent affection. Of the precise nature of these organic changes we are at present ignorant.

*Pathology.* By this term our author means "those morbid operations by which morbid effects are produced"—in other words, the mode in which the remote or exciting causes act in producing diseases. Dr. Venables makes several weighty objections to Dr. Rollo's doctrine of diabetes.

"Were Dr. Rollo's views not otherwise objectionable, the fact that the urine, in many instances, is not saccharine, until after some continuance of the disease, would be alone sufficient to invalidate them. If the saccharine properties of the urine were owing to the separation of this substance by the kidneys, from its commixture with the blood through the faulty action of the stomach, it naturally follows that the urine, from the first augmentation of its quantity, should contain saccharine matter. Here, then, are two strong objections to Dr. Rollo's theory; first, the blood does not in every instance contain sugar; secondly, the urine is not saccharine until the disease has lasted for some considerable time." 82.

After some experiments which our author made on the state of the urine upon the ingurgitation of certain fluids, he comes to the conclusion "that diabetes more frequently arises from a peculiar excitement of the kidneys originating in the direct application of stimuli to their substance."

"At first the excitement is only occasional, and the effect subsides; but the repeated irritation of organs, we well know, brings on inflammatory action, and at last disorganization. It has been observed, in discussing the morbid anatomy of the kidneys in diabetes that they generally exhibit morbid vascular appearances, and frequently considerable disorganization of their structure. The first effect of the irritation is merely an increase of their natural functions, and more urine is separated, than under their natural action would be affected. The qualities of the urine, too, are not affected, or at least not sensibly so, at first, nor until after the repeated application of the stimuli. But, by repeated excitement, not only are their

functions increased and sensibly perverted, as is indicated by the coagulation of the urine, and its saccharine properties, but also their structure and organization become seriously affected." 38.

We shall pass over a great deal of this chapter, and also that on *diagnosis*, since few people can mistake the disease, if they make a proper investigation of the symptoms. We have seen these, however, overlooked by men of great capacity, till a patient was at the verge of the grave, and that from mere inattention. Emaciation, thirst, voracious appetite, dry harsh skin, with a frequent and copious discharge of urine, especially if it be saccharine, are sufficiently characteristic of this terrible malady.

The *Prognosis* in diabetes has been generally unfavourable. Dr. Venables is not quite so desponding, especially where the disease is early detected.

"We may generally infer, (*cæteris paribus*,) the earlier medical treatment has been instituted, the greater the probability of a perfect recovery. When, from the duration of the disease, we have reason to suspect serious organic changes in the structure and mechanism of the kidneys, we must then be more guarded in our prognosis, and not excite hopes or expectations which probably will never be realized." 48.

Our author has seen recoveries effected "under the most unpromising circumstances," but these are no more than exceptions to the general rule. Our prognosis, in fact, must be founded on the state of the constitution as a whole. Where it is bad there is little hope—where no other particular organ or function is threatened than the kidneys and their secretion, some chance is left.

#### *Treatment.*

The first object, in our author's therapœia, is to restrain the inordinate action of the kidneys, and therefore it will be necessary to search for the real exciting causes, and remove them, if possible. No treatment can be successful while the causes that produced them continue to act. If an infant, the nurses' milk should be examined, and if found to be acescent, the nurse should be changed. If an adult, a strict inquiry should be made into the diet, habits of life, &c. The mere removal of causes or correction of bad habits, however, will not cure the disease, if established. There is one fact, which we have learnt from experience, namely, that excessive discharges from the system are moderated by bleeding, independent of any inflammatory condition obtaining at the time; and in this way, Dr. V. observes,

venesection may have often proved a powerful means of restraining the urinary flux, in cases where there was no indication of inflammatory action in the kidneys. But as dissection has often shewn a turgid vascularity of those organs, the utility of venesection becomes still more evident. Dr. Venables' experience coincides with that of Dr. Watt of Glasgow, and some other writers, on this point of practice in diabetes; and he almost invariably adopts venesection, either as a preparatory or curative measure.

"We should not be deterred from repeating the bleedings, merely because the blood does not exhibit the buffy coat, the usually received characteristic of inflamed blood. I have in another place suggested the probability of the characters of the serum being capable of indicating an inflammatory state of the system. I have generally found that a dense milky appearance of this part of the blood indicates inflammatory action, and this independently of the appearances presented by the coagulable part. I have found the pulse rise under such circumstances after venesection, and a repetition of the operation required although the crassamentum should not exhibit the buffy coat, but even seem infirm and dissolved." 59.

The extent to which the measure should be carried can only be judged of by the practitioner in attendance. Repeated small bleedings, however, are preferred by our author to fewer large ones. General bleeding is the best, but if in infants, leeches to the region of the kidneys may be a good substitute. Blisters to the neighbourhood of the plethoric organ are advised by Dr. V. but caution is necessary lest they stimulate the kidneys. They should be kept open by the ceret. sabine rather than the lytta. If there is reason to suppose that considerable organic disease obtains in the kidneys or spinal marrow (a part suspected by our author) then caustic issues should be employed.

Our author makes many judicious observations on the various internal medicines which have been recommended in diabetes. He thinks they have acted more by increasing other secretions than by restraining directly the urinary discharge. After speaking of various tonics and restringents, our author proceeds thus:—

"These facts led me to the conclusion, that some of the metallic phosphates might be advantageously substituted for those with an alkaline base. The tonic and astringent properties of iron and zinc pointed them out as the best suited to the object in view. I selected iron for my first trial, and I have felt so satisfied with its powers, that I have not attempted any farther investigation. I have been really struck with the efficacy of the phosphate of iron in excessive

discharges\* of urine. The quantity is rapidly reduced under the use of this salt, and indeed its qualities sensibly altered. The bulimia which also attends on diabetes is reduced, and the powers of digestion invigorated and increased.

"The phosphate of iron is readily formed by the admixture of solutions of sulphate of iron and phosphate of soda. The resulting salts are sulphate of soda, which, being soluble, passes through, while the insoluble phosphate of iron remains on the filter.

"Phosphate of iron may be given as an astringent in doses of one or two grains, which may be gradually increased to a scruple or half a drachm three or four times in the day. In children, smaller doses should be given, but the exposition of the rules for apportioning them according to the ages of patients, belong to a different branch of medicine. It may be observed, that after a continued use of any medicine the dose must be gradually increased; or otherwise its effects will begin to diminish. Sometimes it is useful to suspend the use of the medicine for a short time, and then to recommence it again. In this way the susceptibility of the system is often revived when it would not be safe to attempt the same object by any other means." 72.

Of the various disorders which accompany diabetes, and which are looked upon by some as the causes of the disease, Dr. Venables has given a full account, with very clear, and judicious directions for the treatment of them. We refer the reader to the seventh chapter for very excellent therapeutical and dietetic observations. The eighth chapter also, on Prophylaxis, is worthy of attentive perusal.

In an extensive appendix, our author has detailed eighteen cases, and two dissections of diabetes. Of these, ten are examples of the urinary flux of children, and form the most novel, and, we think, the most important part of the work. On this account we shall endeavour to convey to our readers a sketch of some of the cases to which we allude.

*Case 1.* A little boy, aged five years, had been ailing for nearly two years. He first became dull and listless, and then emaciated. He frequently complained of his head—eyes were prominent—pupils rather dilated—bowels occasionally disordered. In the progress of the complaint the abdomen swelled a little, and mesenteric affection was suspected. The appetite was

\*"In rickets, carbonate of iron is usually combined with the phosphate of lime, and the combination is found more efficacious than either singly. I have no doubt that decomposition takes place, for in the animal laboratory, the laws of chemical affinity are set at defiance, and those compounds evolved which are most suited to the living purposes."

always good. Cough took place, and then phthisis was feared. Several practitioners were consulted, and various plans of treatment were adopted, without benefit. The child ultimately came under Dr. Venables. He also tried various means, abandoning one after the other. The little patient at length became generally dropsical and died. It was now ascertained that, previously to the dropsical symptoms, the boy had had a great flow of urine—sometimes as much as eight pints per diem. When the dropsy supervened, the urinary secretion diminished.

*Dissection.* There was nothing remarkable in any of the abdominal viscera, except the kidneys. These organs were found in a very diseased state. The right kidney was enlarged, and its vessels turgid with blood. The substance of the viscus felt soft and flabby to the touch, and on cutting into it, a dark-coloured fluid flowed out in abundance. The left kidney presented nearly a similar appearance, but not to so great an extent.

*Case 2.* A woman, who had suffered from diabetes for a long time, at length became dropsical and died. She had always complained of severe pain in the loins. On dissection, the spinal marrow was examined, and the theca vertebralis was found very vascular—the medulla spinalis itself felt unusually hard throughout its whole extent. In one spot it seemed dissolved or softened down into a kind of excavation, not apparently from any thing like ulceration, but as if it had been scooped out at that spot. The excavation was about half an inch in length, situated between the last dorsal and first lumbar vertebræ. A degree of low inflammation seemed to have pervaded a considerable portion of the column, both above and below the excavated part, as evinced by depositions of coagulable lymph, &c.

This case has been introduced with the view, of exciting the attention of practitioners to the examination of the spinal column in diabetic dissections, in order to ascertain whether that organ bears any part in the pathology of the disease. We are of opinion that, in the present case, the two affections were mere coincidences. This, however, is only matter of opinion.

*Case 3.* Our author accidentally saw a little child about eighteen months old, that had been weaned ten months. After weaning its spirits failed, its health declined, and it gradually wasted, till it appeared like a skeleton. The appetite was, all this time, voracious, and the thirst insatiable. The abdomen was full, prominent, and hard to the touch. The bowels alternately constipated and relaxed—stools frequently green—skin hot and dry, but loose and flabby—cough. It was said that the urine was natural, but, on particular enquiry, it was found to amount to

four pints in twelve hours. It had a wheyish appearance, but little taste or smell—did not coagulate by heat or nitric acid. After opening the bowels, chlorine was administered, and then two grains of the phosphate of iron, half a grain of rhubarb, and three of the pulvis aromat. thrice a day. In a fortnight or three weeks the urine was reduced to a quart in the twelve hours.—The phosphate was gradually increased, and in six weeks the urine was reduced to the natural quantity. The appetite had now entirely failed—the phosphate was left off, and proper means were used to restore the general health. The child perfectly recovered.

*Case 4.* A boy, aged ten years, had been declining for upwards of two years. There was now considerable emaciation, with head-ache, thirst, occasional nausea—pulse hard, frequent, and contracted—cough—dyspnoea—hurried respiration—abdomen full and prominent—bowels alternately constipated and relaxed—evacuations of a good colour—skin dry—febrile heat—appetite keen—urine eight pints per diem, containing a good deal of coagulable lymph, and was sensibly saccharine. The boy had dull obtuse pain in the back and region of the kidneys. Hydrocephalus had been suspected, and mercury employed, but no relief was obtained from any treatment. Dr. V. ordered—blood to be taken from the arm, and small doses of antimonial and Dover's powder to be given, at proper intervals—the bowels to be kept open by senna and jalap. The blood being buffed and cupped, venesection was repeated, at first weekly, and afterwards monthly, gradually diminishing the quantity. Leeches were applied to the loins, and mustard cataplasms to the region of the kidneys. The effect of this treatment was a reduction of the febrile heat, relaxation of the skin, and softening of the pulse. The urine was reduced a quart a day from the former quantity, and the coagulable matter disappeared. It became, however, more sensibly saccharine. The phosphate of iron was now administered, in combination with a light bitter and rhubarb. At first it was given in doses of three grains daily, afterwards fifteen grains. The improvement soon became remarkable—the febrile thirst and the keen appetite disappeared—the urine greatly diminished, and void of its saccharine quality. The patient soon regained flesh and strength, and quite recovered.

*Case 5.* A. Sandys, aged eight years, complains of weakness, head-ache, cough, dyspnoea, and a variety of other symptoms simulating phthisical affection. There was great emaciation, urgent thirst, voracious appetite, fever, hard pulse, furred tongue, and constipated bowels. The alvine discharges were unnatural,

being almost as dark as pitch—abdomen full and prominent—pain in the right hypochondrium, with manifest fulness there. The urine measured from six to eight pints in the 24 hours, being sweetish, pale, and transparent. There was pain in the loins and aching of the spine, when in motion. Pressure on the region of the kidneys excited nausea and even vomiting. This child had been delicate from birth. She had lately had small-pox, hooping-cough, scarlatina, and measles, after which the pulmonary symptoms had come on. Blood was taken from the arm, and leeches applied to the hypochondrium. Small doses of calomel were also prescribed to correct the state of the liver and bowels; but it produced irritation and was left off. All other preparations of mercury also disagreed. The taraxacum and chlorine succeeded better, and the fæces became natural. No alteration in the urinary secretion—the diuresis continued excessive. The phosphate of iron, in doses of three grains, thrice a day, was given, and leeches were applied to the loins. The phosphate was gradually increased. But although it controlled the urinary discharge, it oppressed the stomach, which effect was relieved by a mustard cataplasm to that region. The sweetness of the urine was gradually but slowly removed under the continued use of the phosphate, and the discharge itself considerably reduced. Amendment took place to a certain point, but could not be pushed further. An issue was therefore inserted on each side of the spine. The general health was supported by bark, and the phosphate was continued. At the end of five months the little patient was so far convalescent that the caustic issues were removed—she was sent to the sea, whence she returned perfectly well.

We have now furnished our readers with a few examples of the numerous cases detailed at length by Dr. Venables, and also an outline of principles and modes of treatment which he has laid down. The young practitioner in particular will do well to peruse the whole work, and indeed much information will be derived from it by every class of the profession. We tender the able author our thanks for the pleasure and instruction we have received from an examination of the publication, and beg to express to him our sincere wishes for a continuance of that zeal and ability which he has shewn in the prosecution of medical science.

## Abstract of Foreign Medicine.

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### PRACTICE OF MEDICINE.

*Cold Spirituous Lotions to the Chest.*—In a recent number of the Medical Gazette, is a paper signed Philalethis, which recommends in strong terms the application of Spirituous Lotions to the Chest, in many chronic inflammatory affections of that region. It will be remembered that such cooling lotions have heretofore been used in similar diseases of the abdomen and with good effects. The Lotion used by P. is 7 parts water, 1 of alcohol, and a little Eau de Cologne. It is applied across the upper part of the chest, the patient being in bed, by means of folded linen cloths—tepid first, and then cold. A young lady who had suffered two years from a cough, and who had used other remedies in vain, was relieved by it in a month. Capt. M. of the India service, was in a similar manner relieved of a cough and pain, in the region of the heart. Other cases also illustrating its utility are related.

We doubt not that this expedient will strike our readers generally as rash practice, since we know that these inflammatory affections of the thoracic viscera are generally produced, in part, by the impression of cold on the surface of the body. But it is to be observed that the cold application is made merely to the chest, and that the patient being in bed, the extremities and other parts of the body are kept warm. The probability is, also, that the remedy was used in cases in which bleeding has been premised. Now, under such circumstances, we may suppose that the remedy produces the same effect that in phrenitis cold lotions do, when applied to the head. We know that they repel the circulating fluids from that region and diminish the vascular excitement of the brain, even although the cold impression be made only on the surface. The vessels of the contained viscera are influenced, probably, sympathetically.

*Remarks on accumulations of Morbid Matters in the bowels, as a cause of Nervous and other Ailments.*—Our author, Mr. J. Annesley, commences this sub-section by remarking that, when the cæcum and colon become loaded, they disturb other viscera mechanically by pressure. Thus the right iliac veins and nerves are pressed upon by the distended sæcum, hence, he thinks, pains of the right lower extremity, or even partial paralysis. When the collections take place in the sigmoid flexure of the colon, the same phenomena take place in the left side.

“In addition to these symptoms, patients thus circumstanced frequently complain of pains in the loins, with occasional disorder of the urinary secretion, which is generally of a deeper color than natural, and either depositing a very thick sediment, or exhibiting a very thick, mucous-like cloud, or both. When the fecal accumulations are carried to the greatest height, then, in addition to the above ailments, or even independently of them in some cases, an oedematous state of the lower extremities supervenes, with an inability to use them, or at least a difficulty in subjecting them to the least voluntary exertion.”

Mr. A. does not deny that there may be other causes for these symptoms; but merely asserts that this is one cause. He thinks the same collections of morbid matters are often the cause of rheumatism and gout. The functions of the liver are deranged in this way—but hepatic disorder is not seldom the precursor and cause of the intestinal accumulations. The distention of the bowels by flatus or more ponderous materials, will also embarrass the function of the lungs and the action of the heart. Indeed our author is inclined to trace almost all the diseases of the liver to this loaded state of the bowels—having, no doubt, his worthy chylipoietic master, of Bartholomew's, in view. It need hardly be added that the *methodus medendi* is reiterated purgation of the most active kind.

[*Med. Chir. Review.*

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#### PRACTICE OF SURGERY.

*M. Dupuytren's sentiments on Union by the first and second Intention.*—It would appear that several amputations of the upper or lower extremities were performed last Winter at the Hôtel Dieu, and afforded the surgeon of that establishment an opportunity of delivering his sentiments, and detailing the results of his experience. The ancient surgeons did not argue the advantages, or otherwise of union by the first intention, because by their modes of operating and dressing they could not well obtain it. The mode of procuring that desirable event was discovered in England, adopted with ardour in Germany, and, although employed by Dessault, condemned in the first instance, and even now but half understood and reluctantly practised in France. The military surgeons of that country, who be it remembered were most frequently in contact with the English, defended the new method by word and by deed, and the benefits it promised seduced very many of the French Savans. Isolated cases of success poured in, but as M. Dupuytren very justly remarks, stray facts are merely chaff and bran, matters of no weight and arguments of little value in determining a great question. It is only by cases en masse, by the collection and comparison of a number of facts, that we can arrive at general and sound conclusions. "Now such a method of examination is unfavourable to the triumph of union by the first, over union by the second intention."

M. Dupuytren is convinced that more amputation patients are lost by the new than by the ancient method, and on a careful consideration of a number of cases he finds that the results are in favour of the latter. Out of thirty amputations of limbs (large and small) in which union by the second intention was attempted, there were six fatal cases; whilst out of twenty-nine other amputations in which union by the first intention was essayed, there were nine fatal cases. M. Dupuytren has on several occasions made similar calculations. The cases are mostly those of patients suffering from suppurations of long standing, as from caries, white swellings, &c. and it is impossible to arrest such discharges with suddenness and violence, without producing great disturbance in the system. Bold or insidious inflammations of the viscera are too often the consequences, and M. Dupuytren believes that phlebitis is more common under the present method than it was under the old one.

Union by the first intention succeeds better in the hands of military surgeons than in civil hospitals, because the subjects are active and vigorous men, who have not laboured previously under local inflammations or suppurations. Such subjects bear the operation better, and the symptoms that succeed are of a less complex and questionable nature, than those which occur in hospital patients. Persons in the latter who require amputation in

consequence of accidental injuries, are cured as frequently as soldiers, and are as well adapted for union by the first intention. The advantages then of union by the first intention are far less brilliant, and its disadvantages more numerous than its partisans professed and believed. It is beginning to be abandoned, observes M. Dupuytren, in the country which gave it birth.

The able Baron himself appears to be decided on only attempting it in a few cases, and is resolved to adopt the old mode of dressing in the great majority. M. Dupuytren, however, has no intention of resuscitating the faults of the old system; of cramming the stump with lint and dressings, and tearing them away before they were properly detached by the suppurative process; a practice which did an infinity of mischief, and rendered the 'first dressing' more excruciating and dreadful than the operation itself. M. Dupuytren's intention is merely to interpose a certain quantity of fine lint between the sides of the stump, to approximate the latter gently by adhesive straps, and finally not to withdraw the dressings until they are loosened and cast off by the suppuration. By these means a more or less copious secretion of pus is kept up on the face of the stump, and the patient is not subjected to the inconveniences and dangers arising from the sudden stoppage of an habitual drain.

*On Inflammation of the Choroid Coat.*—Our attention having been particularly drawn to a paper bearing the above title, from the pen of our former confrère, and a very able surgeon, Mr. Mackenzie, we were induced to con it over with care. The perusal justifying the encomia pronounced on it by our correspondent, we shall introduce it to the notice of a far wider circle of readers, than the original respectable journal in which it appeared can possibly obtain for it.

The situation and characters of the choroid coat, says Mr. Mackenzie, supply sufficient reasons for the inflammation which attacks its texture, having hitherto failed to attract attention or having bid defiance to a precise elucidation. It is generally acknowledged that iritis is occasionally attended by inflammation of the choroid, but as the arteries of the parts are distinct in course and distribution, the idea of a separate choroiditis and iritis is, *a priori*, rendered probable.

"For some time, the separate existence of choroiditis was with me rather a matter of speculation, and a conclusion from analogy, than a fact ascertained by observation. I am now convinced, however, that the choroid is sometimes the seat, almost quite independently, of inflammation; that in certain cases of ophthalmia, it is the focus of the disease, and that the neighbouring parts may be as little affected when that is the case, as the sclerotica is in iritis, or the iris in scleratitis. That it is of importance to distinguish the disease which I am now about to describe, will appear very evident, when we consider its dangerous nature. Its symptoms, as we shall immediately see, are very different from those of any other ophthalmia; and although ultimately the whole eye may be involved by inflammation commencing in the choroid, yet choroiditis, in the early stage, exists without any signs of disease in the iris, and without any other effects upon the sclerotica and retina, than those which necessarily arise from the pressure of an inflamed and swollen membrane, placed in contiguity with other membranes, more or less susceptible of suffering from that pressure. I consider choroiditis, therefore, as completely a primary and distinct disease."

[*Med. Chr. Review.*]

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The present number has been delayed by unavoidable occurrences.

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Original Essays.

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ART. I.—*Remarks on the Treatment of those cases of Fracture of the Cranium, in which the Dura Mater is Lacerated: and on the Pathology and Treatment of Hernia Cerebri.*—By the Editor.

THE brain is composed of a tissue endowed with such feeble physical qualities—such imperfect tenacity, that unless effectually sustained by surrounding substances of greater firmness, it is not capable, for a moment, of retaining its form, or preserving its integrity of structure. To sustain and defend so delicate a mass, there are furnished the firm walls of the cranium accurately adapted to its form, and the tenacious envelope of the dura mater. When a portion of the cranium is broken and removed, (if it be not very extensive,) the dura mater within it is still capable of sustaining the brain at that place, though not of so effectually defending it from external violence. But, when the dura mater is also torn, and the external firm envelopes thus completely removed from the organ at that place, the delicate texture of the brain, even although the rupture may be small, is very liable to suffer disorganization, unless means

be employed which shall furnish a resistance, and yield a support, like that of the cranium and dura mater. To furnish such a substitute for these supports is a matter of extreme difficulty, and hence, with the most judicious treatment, patients who have suffered this degree of injury will, very often, ultimately perish, even although the disorganization immediately produced by the blow, should not be at once productive of serious consequences.

Various opinions have been entertained by different individuals in regard to the nature and immediate cause of *hernia cerebri*, the form of disease which is very liable to result from injuries of the above description. Mr. Abernethy believes that it results from a kind of hemorrhage which takes place in the substance of the brain, near the part struck. "This hemorrhage," he says, "was for a time restrained by the super-incumbent brain and its membranes; but these gradually yielding to the expansive force exerted from within, and at last giving way altogether, the fluid blood oozed out and congealed upon the surface of the tumour." Mr. A. does not think these tumours to be organized. In the case detailed by him, the mass of the tumour seemed to consist of blood. This, however, has not been the aspect of the disease as often seen by others. I have myself examined a case of this affection after death—a case in which a portion of the tumour had been excised. The cadaver was brought to my dissecting room. The disease had resulted from a fracture of the os frontis, attended with laceration of the dura mater. A portion of the brain had issued from the wound. No unpleasant symptoms, however, had arisen from the injury till the occurrence of the hernia. Even then, indeed, he had seemed for a time to suffer no inconvenience—complaining but little of pain, and his intellectual faculties being but little disturbed. The tumour, when it had acquired considerable size, was once cut away, and, as I was informed, presented very much the aspect of the brain itself, except that it was more vascular.

Soon after this, the patient began to suffer the symptoms of

cerebral irritation, and finally perished in convulsions. At the time that I examined the head, the tumour had again risen above the surface of the cranium; and it was obviously a portion of the brain itself, having undergone some degree of disorganization by mechanical violence.

Mr. Stanley, who has furnished a paper on this subject in the 8th volume of the *Medico-Chirurgical Transactions*, confirms the doctrine of some of the older surgeons, that these tumours are, at least in great part, protrusions of the brain itself. He found, it is true, a great deal of concomitant disease in the brain and its membranes, and seems to believe that such protrusions do not occur but in consequence of degeneration of those tissues, and a preternatural rush of blood to the brain, caused by disease.

Mr. C. Bell regards these tumours as organized excrescences, sprouting with great luxuriance from the brain and pia mater. Such tumours do undoubtedly sometimes occur, as from the extremely vascular tissues of other regions. The vessels of the pia mater, for instance, when its external investments are destroyed, may commence the process of reparation by the production of granulations, but these being unsustained by external parts, and being very forcibly injected with blood by the very vascular tissue of the pia mater, soon begin to sprout with morbid luxuriance, and the intent of nature is entirely defeated.—Something of this nature may undoubtedly often occur, together with a protrusion of a portion of the brain.

I am persuaded, however, that the most frequent and fatal tumour, which thus issues from the surface of an exposed brain, is the brain itself, protruded by the unremitted impulse of the arteries of the organ. My reasons for this belief, are:—1st. We should anticipate such a result from what we know of the anatomical relations of the brain to its external coverings—the *tumina cerebri* as they are termed. The integrity of the structure of the brain is not, as we see, at all dependant on its own tenacity, but entirely on the strength and firmness of the *dura mater* and cranium. When we remove the calvarium and *dura*

mater from the brain, it is disorganized by its own weight.—But during life, this support must be infinitely more necessary to the mechanical support of the organ, because it then sustains a powerful impulse from the copious streams of blood which are rushing to the brain. No organ, indeed, feels the beat of the heart so sensibly. Any one acquainted with the principles of hydraulic pressure, must form a just conception of the distension which is produced in the brain by the forcible entrance of blood by these vessels. The resistance of the vessels themselves will have but little influence in counteracting this, because, as soon as they have yielded in the least, the whole pressure will be thrown upon the brain. The pressure which the whole periphery of the brain will then suffer, will be every where nearly equal to that which the carotid sustains.

2. True hernia of the brain sometimes occurs in children, in whom the ossification of the cranial bones is slow and imperfect; and in whom, at the same time, there exists an unusual degree of cerebral excitement and determination of blood to the head. Large tumours are sometimes formed, in such cases, by the protrusion of the brain at the fontanelles, even although the dura mater is then entire. An account of this affection may be found in the *Memoirs of the Royal Academy of Surgery*, vol. 13. This fact would certainly induce us to believe that, when, in the more perfectly ossified head, not only the bony support is removed, but also the dura mater, the brain must often at that part be protruded, especially since the same injury which destroys these tutamina, creates excitement and increased force in the circulation.

3. If, in the dead subject, we remove a portion of the walls of the cranium with a large trephine—take away a corresponding portion of the dura mater, and then throw coarse injections into the vessels of the brain, with force continued for some little time, we can cause the brain to be in some degree protruded at the opening.

But we do not depend altogether upon a priori induction.—It is very rare indeed that any of the forms of disease, termed

*hernia cerebri*, occur except when there is fracture of the cranium, together with laceration of the *dura mater*. Sometimes, it is true, morbid vascular concrescence takes place in the substance of the brain, or in the membranes, and subsequently causes the death or absorption of the bone and *dura mater*.—But such tumours present a very different appearance from the true *hernia cerebri*, and are attended with very different phenomena. They are morbid growths, and not protrusions of the brain; at least not till they have caused the destruction of a portion of the bone and *dura mater*. A very large proportion, even of all those excrescences which are commonly called *hernia cerebri*, occur only after fracture of the bone, together with laceration or death of a portion of the *dura mater*. The occurrence of *hernia cerebri*, after such an injury, is, indeed, one of the results most liable to take place, and the prognosis of the prudent surgeon always contemplates it. Such being the fact, then, we have reason to infer, that the peculiar character of the injury stands in relation of a cause to the consequence which is observed so often to follow. If *hernia cerebri* is the result which we uniformly dread, when the cranium and *dura mater* are removed, there is certainly reason to believe that this kind of injury has something to do with producing it. The bone and the *dura mater* exercise but little vital influence upon the brain; their offices are mechanical, they being especially designed to support that delicate organ. Consequently, when they are injured, if the brain suffers, it is because it has lost its mechanical support, and yields to the impulse of its circulating blood.

But the most direct evidence that such is the character of the tumour, is the appearance which a section of it presents.—Many surgeons positively aver that the substance of the tumour is cerebral. I have distinctly seen it to be such. That it should appear medullary throughout is not to be expected, because a laceration of the minute vessels of the brain, which would pour their blood into the meshes of the *pia mater* where it would coagulate and produce the appearance of a sangui-

neous tumour must take place. Indeed, it is easy to conceive that blood, thus extravasated, should often obscure the character of a tumour essentially and primarily medullary.

It may be presumed, also, that, before the protrusion takes place, or perhaps after it, nature will have attempted the process of reparation. Granulations will have begun to sprout; but cicatrization being defeated, these granulations will be protruded together with the cerebral mass. After this, they will still continue to vegetate, and thus we have, associated with the cerebral tumour, a distinct vascular, organized excrescence.

Fungus cerebri which occurs after a fracture of the cranium (that also lacerates the dura mater without inflicting much injury upon the brain itself,) most frequently commences without evidence of vascular disease in the adjacent portion of the brain, such as can be regarded as the cause of the occurrence. Mr. Stanley, it is true, speaks of collections of matter, foci of inflammation, degenerations of texture &c. as occurring in the brain, near the base of the hernia, and probably contributing to its production. But have we not more reason to believe that these morbid phenomena are the result of the hernia, rather than its cause? Certainly we ought to anticipate from the organic derangement which the protrusion must cause, a great deal of irritation in the surrounding portions of the brain.

In most cases of fungus cerebri which have come under my observation, the beginning of the protrusion has been the beginning of the alarming morbid phenomena. Previous to its occurrence, indeed, nothing indicating an unfavourable result has been present—no unusual pain, or cerebral excitement—no unhealthy aspect of the wound, or appearance of degeneration. Indeed, I have known the protrusion to take place to some extent, without the occurrence of any symptom that would of itself be premonitory of the fatal consequences which are to follow. But, when the tumour has become considerable, and often very promptly after its occurrence, derangements of the cerebral functions begin to manifest themselves, and, for the most part, they keep pace with the organic

derangement which is caused by the protrusion of the portion of brain.

The symptoms which mark the progress of a cerebral hernia, are—extreme restlessness—pain in the wound—coma—irregular, interrupted respiration, with deep sighing and moaning—irritability of the eye, with contraction of the pupil, in the early stages—convulsions, partial paralysis, strabismus, dilatation of the pupils, towards the close. The pulse is but little affected at the commencement, but soon becomes frequent and irritated. It may, in the latter stages, become unfrequent and sluggish, as in compression of the brain. The gastric functions, and those of the discerning organs, may not be particularly affected at the beginning, but they become greatly disordered in its progress. The tongue becomes, at first, white and tremulous—subsequently it is dark and foul. The stomach is irritable, and the alvine evacuations are scanty and dark. The skin is dry, unless when bedewed with the sweat of distress.

#### *Treatment of Hernia Cerebri.*

The remediate measures employed in the treatment of this affection, and of the injury which conduces to it, may be resolved into,—1st. those which are used for Prevention; and, 2d. those which are subservient to the Cure of the disease.

1. I have endeavoured to show that the legitimate cause of true hernia of the brain, is the destruction of a portion of the walls of the cranium and of the dura mater—the brain being thus deprived of its accustomed support. Almost every surgeon of extensive experience will learn to dread the occurrence of the disease from a wound of this character. It is an obvious duty, then, on the part of the surgeon, to counteract, by some means, the influence of the cause, and to prevent the effect which is to be feared. The mechanical supports of the brain being removed, it would seem to be necessary that something should be supplied which may act as a substitute for the cranium and dura mater, in sustaining the brain and resisting the impulse of

the blood, which now begins to circulate with increased impetus in the head. The indication is to employ something which, like the cranium, shall merely resist without making any pressure on the brain, since this, even in the slightest degree, is observed to be at once productive of the most serious consequences.

To accomplish this object, we must employ something which is hard and unyielding, and which can, at the same time, be accurately moulded and adapted to the part. Professor Nathan Smith, late of Yale College, was in the habit of employing, for this purpose, a plate of lead, or pewter. This he endeavoured, by hammering and bending, to fit accurately to the form of the head. First, he applied a soft pledget of lint to the vacuity in the bone—over this a thin cerecloth, and then the plate of pewter, which he bandaged securely to the head. When the parts are placed in this condition, it is obvious that, as soon as this portion of the brain begins to rise above the general surface of the organ, it will be met and steadily resisted by the firm substance applied, before disorganization will have taken place. The plate of metal is so applied to the external surface of the head, that it can make no active pressure on the brain, but merely furnish steady resistance. The resistance which the protruding portion of the brain encounters, is very gradually increased, as the protrusion increases, and the brain gradually accommodates itself to this resistance. Were the metal applied not till after the protrusion had begun to take place; and were it then so applied as immediately to make a pressure and to repress the protruding portion, we have reason to believe that it could not be endured without creating, at once, the symptoms of compression of the brain.

Professor Smith treated several cases of fracture of the cranium complicated with laceration of the dura mater, in this manner, and with success in preventing the occurrence of *hernia cerebri*. He, however, found it difficult to fit the plate accurately, and that it required more mechanical tact than most surgeons possess, especially as the surface of the part is then rendered irregular by the injury. It has since occurred to me, that, if

something could be applied to the part which should at first be soft and pliable enough to adapt itself accurately to the configuration of the part, without injurious pressure upon any point, and which should then become hard, so as to accomplish the function of the bone in regard to support, the thing would be effected in a much more perfect and uniform manner. These thoughts suggested to me the employment of successive layers of strong paste-board, wet and softened in such a manner as to be easily moulded to the part. Into the vacuity, over the brain, there should first be laid a soft pledget of lint, spread with simple cerate—on the out-side of this, a thin linen cloth, broad enough to cover the whole surface of the injured part. Over this the first piece of wet paste-board is to be laid, and it may be incised, at the edges, in various places, in order to make it adapt itself accurately. Over this, others are to be placed, in the same manner, until a sufficient number is applied to give the necessary degree of firmness when they shall have dried. Usually, three will be sufficient. Over the whole a bandage is to be applied with gentle constriction. In the course of an hour or more, the paper dries, and forms a firm shell, which will effectually perform the office of the lost portion of the cranium, so far as the mechanical support of the brain is concerned.—When it becomes necessary to remove the dressings, this shell of paper may be removed at once, without altering its form, and on cleansing and re-dressing the wound, it may be applied in precisely the same attitude as before. This application I regard as more perfect than the plate of metal, not only because it is infinitely easier to adapt it perfectly—but because it is a great deal lighter, and less annoying to the patient.

*Case.*—In December 1828, there occurred to me in this city, a case which I regarded as illustrative of the utility of this apparatus. The son of Mr. ———, of Howard street, æt. 7, was kicked by a horse, on the frontal bone, near the centre of the right boss. The bone was comminuted to considerable extent, and the integuments extensively lacerated. On my being called to visit him, in consultation with Drs. Chapman and

Thomas, of Lexington street, we found the lad in a state of partial insensibility, though conscious of pain when the part was touched, and restless. On raising the scalp, a portion of the cranium was found to be depressed, and to present its sharp spiculæ inward, upon the dura mater. To elevate and remove this, it was necessary to apply the crown of a small traphine, and subsequently to use the Hey's saw, for removing a projecting angle. On accomplishing this, we discovered that the dura mater was lacerated to some extent, and transfixcd with spiculæ of bone. The arachnoid and pia mater were broken, and a portion of the brain issued from the wound. I should here remark that the portions of bone destroyed by the blow and removed with the traphine, were about equal, in extent, to the superficies of a half-dollar. The dura mater was lacerated half across this space.

During the performance of the operation, the lad complained much, but seemed unconscious of his condition. When it was accomplished, he sunk into a comatose condition, with at first a sluggish pulse, and irregular breathing. Stitches were used, and the wound was dressed with adhesive straps and lint. A few hours after, he suffered a convulsion. The pulse rose, bounding violently, and requiring the free and repeated use of the lancet. The next day, his nervous system was much more calm—his pulse more tranquil—the system evidently recovering from the immediate effects of the injury. The head was kept wet with evaporating lotions,—the bowels were opened by a gentle purgative. The danger from irritation and inflammation seeming now to be in some degree parried, our attention was directed to the dreaded occurrence of hernia cerebri. The head was dressed on the 3d day. The wound was found to present a favourable aspect; but, beneath it, the brain pulsated violently, and the parts received a powerful impulse at each throb.

There was now a probability that the case might result favourably, provided that the protrusion of the brain, and the occurrence of hernia cerebri, could be prevented. This, then,

became my principal object. We dressed the wound as I have directed above—found it easy to mould the paste-board to the form of the parts, and that, when it become dry, it furnished a very perfect, firm support, that, without pressing directly on the brain, resisted effectually the throbs of the organ, and appeared to obviate all tendency to protrusion. At first, this dressing was not renewed oftener than once in two days. It gave him little or no inconvenience. In other respects, the case was treated in the usual manner—with vene-section—spare diet—perfect rest—an elevated attitude of the head—and occasional laxatives.

This boy perfectly recovered, in a brief space of time. He is now a vigorous and healthy lad; but nature has done very little toward supplying the deficiency of the cranium, at the place of fracture. Over the whole seat of the fracture, the brain is defended and sustained only by the membranes, and by the scalp. The pulsations of the brain are obvious to the eye at a considerable distance.

It is scarcely necessary to add, that, in the preventive treatment, copious and repeated vene-section should always constitute a part of the plan. In this we have two objects in view; first, to subdue the vascular excitement which of itself may soon prove fatal; and, second, to diminish the amount of blood circulating in the brain, and to subdue the violence of the throb, which, under these circumstances, is preternaturally strong.—Indeed, the increased impetus of the blood circulating in the brain, is to be regarded as one of the most important causes aiding to produce this disease.—It is, of course, impossible to give any precise instructions in regard to the quantity of blood to be taken, or the frequency of the vene-sections. This general precept may, however, be borne in mind, that in this condition of things, bleeding may be carried farther than under almost any other circumstances, and that the force of the pulse should always be kept below the standard of healthy action.

The head should be kept elevated, in order that the ingress of blood may be counteracted by gravity. Evaporating lotions may also be employed to keep the head cool, and thus repel the

fluids. This may be done without softening the paper, if we lay over it a piece of oiled silk, or brush over its external surface a little spirit varnish. Or, we might moisten our paper, when first applied, with spirit varnish, instead of water. Then, over the whole head, a wetted cloth may be laid, and kept constantly exposed to the atmosphere. Light—noise—conversation—every thing, indeed, which may be supposed to produce the least cerebral excitement, is carefully to be avoided.

2. When the disease has already manifested itself, our prognosis must generally be unfavourable; but yet, the many cases of subsequent recovery on record, encourage us to contend with the malady. If there has as yet taken place no remarkable degree of cerebral irritation, we need by no means despair.

When the tumour has not yet risen to a level with the external surface of the cranium, our mode of treatment is precisely the same as that which I have advised for the purpose of preventing its occurrence. Our adjuvant measures—that is the depletory means &c., are to be urged with more vigor, because the result must necessarily be fatal, unless we speedily arrest its progress.

But when the tumour has risen above the level of the external surface of the cranium, further interference on the part of the surgeon appears to be necessary, if, as is his duty, he would still labour to rescue his patient from his perilous, but not hopeless condition. The first question to be considered, is,—shall the protruding mass be cut away, as has been practised by Stanley, Pring, Hill, Richerand and others? or, shall we adopt the less active measures of Larrey, who condemns all irritating means? Many cases are on record in which the former practice has been attended with happy results. It is true, when we consider that the tumour is chiefly composed of a cerebral protrusion, that the proposal to excise the mass is at first startling. But it is at the same time to be borne in mind that this portion of the brain, in being thus protruded, has already undergone a degree of disorganization—that it is already suffering extreme irritation from the mechanical violence which is

continuing to be inflicted. It is to be borne in mind also, that whatever course of treatment we may resolve to pursue, our remedies and our dressings will necessarily inflict much irritation upon the exposed mass. Indeed, if the case is to result favourably, the protruded tumour must necessarily undergo disorganization before the wound can cicatrize. That it can be pressed back again into the cavity of the cranium, is not to be expected, as such an attempt has been observed by surgeons to produce at once the symptoms of compression of the brain.—This result was witnessed by Professor N. Smith, in two or three cases treated by him, and which he was accustomed to relate in his lectures. Larrey and Stanley observed the same.

There appears then to be but one alternative. We must either leave the tumour to the efforts of nature entirely, trusting that it may perish and slough away, and that the tendency to further protrusion may spontaneously cease, and cicatrization be effected; or, we must at once remove the tumour with the ligature, or the knife, level with the surface of the cranium, or below it.\*

It is true that, in some rare instances, the tumour has spontaneously separated and recovery has been the result. But this is a thing so little to be expected, that the interference of the surgeon seems to be imperiously demanded. If there is any thing to be accomplished by furnishing a substitute for the natural supports of the brain, at an early period, it certainly must be equally necessary at a later period. Indeed, the tendency to protrusion probably becomes stronger as the tumour increases, because, by the loss of a portion of the brain within, room is made for the ingress of more blood, and, the vessels becoming excited, the pressure is increased. But how can we furnish the necessary support to the brain, while we suffer the excrescence to remain?

I am persuaded, therefore, of the propriety of at once paring away the tumour, at least as low as the external surface of the

\*The use of styptics to repress its growth, I regard as a proposal unworthy of particular notice.

cranium. Larrey, it is true, condemns this practice as having been unsuccessful under his observation; but in the cases witnessed by him, the subsequent treatment seems not to have been adequate. In the hands of others, whose names I have mentioned, this method has been found more successful than any other, even when not associated with the means which I am about to recommend.

For the removal of the tumour, the knife is decidedly preferable to the ligature, for reasons on which it is unnecessary to dwell. When the protruded mass has been thus excised, we are advised by some to make direct pressure upon the exposed surface, not only for the purpose of repressing the growth of the tumour; but also for the purpose of forcing into the cavity of the cranium that portion which rises to the level of its external surface. Both fact and analogy are decidedly hostile to such a practice. It is true that some degree of pressure can be exercised on the brain, provided that pressure be gradually imparted, and increased with perfect uniformity. This, when direct pressure is made on the tumour, is impossible. Larrey did not witness a single case in which such pressure could be endured with advantage. My father witnessed the trial of it in two or three cases, and found it to be attended with the most distressing consequences. In those cases in which compression is reported to have been successfully employed by Sir A. Cooper, Pring, and Stanley, we have good reason to believe that the means employed rather occasioned steady resistance, than direct pressure. This, indeed, must have been the case in the practice of Sir A. C. because he chiefly relied upon the pressure of adhesive straps. Now these, however closely they may be applied, will invariably yield a little, and that which was pressure at first, becomes mere resistance.

Indeed, the very object which we have in view would seem at once to point out the impropriety of making actual pressure upon the tumour. The attempt to force back any portion of the protruded mass, into the sack of the dura mater, is now regarded by all as utterly futile. Sir Astley Cooper desires mere-

ly to keep its surface on a level with the external surface of the cranium, when the scalp will heal over it. If this be the object, it must certainly be unnecessary, as well as generally mischevous, to apply any thing which shall make active pressure upon the part.

I am sanguine in the belief, that the sole object of the surgeon should here be, merely to furnish something which shall serve as a substitute for the portions of cranium and dura mater which have been removed—something hard and unyielding, accurately fitted to the part, and which, like the previous coverings, shall merely make steady resistance, but *never follow up the parts with active pressure*. This is certainly antagonizing one of the most important causes of the disease, and therefore the remedy which nature indicates. Professor N. Smith, accomplished this also, by the employment of the metallic plate, so applied that it merely came in contact with the cerebral mass, without making the least active pressure upon it. Its rigidity, and its being applied over a considerable surface, effectually protected the brain from any varying and injurious pressure of the bandage. It therefore served as a firm support to the brain, and at the same time as an effectual shield for its external protection, precisely as does the natural bone itself.

The metallic plate was applied in precisely the same manner as for the prevention of the disease. The portion protruded having been cut away as near to the surface of the brain as possible, a pledget of soft lint was first applied—then a cerecloth, and lastly the plate secured with bandages. At the time of its application, the plate made no resistance to the brain; but as the disease advanced, the protrusion encountered the firm plate, and experienced the same resistance from it that other portions of the brain did from the cranium. All the pressure or reaction, then, which could be made upon the brain, was occasioned by its own tendency to protrusion. Necessarily therefore, as the brain gradually came in contact with the resistance, the pressure which the brain experienced would be very slowly and uniformly increased, in precise correspondence with the

growth of the tumour. Now we know that a gentle pressure, thus gradually imparted, can be endured by the brain without serious consequences. It is like that which is made upon the organ by the growth of a bony tumour within the cranium—like that which is inflicted upon the spinal marrow, by a gradually increased curvature.

This mode of treatment succeeded in my father's hands in two cases which he was accustomed to relate in his lectures, but the notes of which have unfortunately not been preserved.

For the same reason that I prefer the shield of paper in the preventive treatment, I should also prefer it here, and apply it in the same manner. I should be more careful, however, that the paper layers might nicely fit the head, and that they should be thick, and firm enough, when dry, to make steady resistance.—The same means should be employed to prevent the absorption of fluids by the paper.

But perhaps a better method than either, to accomplish the object in the most perfect manner, would be to beat up paper in gum-water, to the consistence of thick pulp, (*papier maché*) and to mould this to the head, it would merely be necessary to apply the lint as before—then a thin piece of oiled silk, or plaster-cloth—and then to apply the pulp, of such consistence that it would soon become hard. That it might the more quickly become firm and not alter its form in any degree, we might combine with it a small quantity of plaster of Paris.

The support, however it may be applied, should not be removed, if it be possible to avoid it, till the third or fourth day after its application, and then it should be quickly re-applied.—It ought to be continued till cicatrization is nearly completed.

ART. II.—*Observations on some of those Affections, (and particularly of the Heart,) which arise from Sympathy with the Digestive Organs.*—By B. Ticknor, of the U. S. Navy.

AT no period, I believe, since medicine began to assume the character of a science, have derangements of the digestive organs received so much attention from medical inquirers, as at the present time. This is owing in part, to the greater frequency of these derangements at the present day, than at any former period, in consequence of the great progress that has been made within a few years in the arts which minister to the luxuries of the table, and of other causes, which will be hereafter enumerated; and in part also, I believe, to the influence of certain physiological and pathological doctrines of a recent origin, according to which, almost all diseases have their seat in the digestive organs.

I shall not now make any remarks on these doctrines; for whether they be true or not, in their full extent, there can be no doubt that these organs are more or less concerned, either directly or by sympathy, of which they are manifestly the great centre, in almost all the diseases, with which we are affected; and that they have therefore a just claim to all the attention that is bestowed upon them. The inquiries of medical men having been thus generally and attentively directed both to the healthy and morbid condition of these important organs, our knowledge of the diseases, of which they are the immediate seat, or over which, though seated in other organs, they exert a great influence, has been very considerably increased. So great an advance, indeed, has been made in this branch of medical science within the last few years, and so thoroughly does every subject connected with these important organs appear to have been investigated, that it might be supposed hardly possible to bring forward any thing new or interesting respecting them.

But notwithstanding most of the diseases which have their seat in the digestive organs, as well as those over which they exercise immediate control, may be now so fully and accurately understood, as to render it probable, that our knowledge of them will not receive any material accession from future inquiries; there are yet some affections depending on disorder of these organs, which have not received such a degree of attention, as they appear to me to demand. I allude, of course, to those distressing, and frequently alarming affections, which constitute the subject of the present article, by which the lives of many persons are rendered extremely miserable; and which I consider as arising wholly from the sympathetic influence of the digestive organs.

As the anatomical structure and relations of these organs are now so generally and accurately understood by all who make any pretensions to medical science, it is unnecessary to spend any time in describing them; nor would any benefit result from any thing I could say respecting the pathology of these organs, or the manner in which they exert their sympathetic influence; because all the advance that has yet been made in this department of pathological knowledge, does not lead us to such an acquaintance with those sympathetic affections which are the subject of these remarks, as can give us any additional control over them. It is only by a careful observation of the phenomena which they present, that any useful knowledge of them can be acquired; and the principal object of this communication is, to contribute, so far as I am able, from what I have experienced myself, and observed in others, to a thorough investigation and relief of these distressing complaints. I do not, in the least pretend, that I have made any new discovery in this department of medical science; nor shall I undertake to amuse myself and those who may favor this communication with a perusal, with any new doctrines respecting those sympathetic affections, which owe their existence to that kind of agency, which may be better understood by observing its effects, than by any speculations concerning its nature. All

that I have in view, in offering these remarks to the public is, to exhibit these distressing maladies in such a manner, to the consideration of medical practitioners, as may lead eventually to a correct knowledge of their pathology, and a successful method of treating them. That others have had opportunities of becoming acquainted with these complaints, as well as myself, is certainly true; and I am very ready to believe that there are many medical gentlemen much more capable, in all respects, of communicating valuable information on this subject, than I am. But since they have not communicated their knowledge to the public, at least, since they have not treated expressly of those affections, in such a manner as to lead to the conclusion, that they considered them so important, as they appear to one, who has been induced by his own sufferings to study them with peculiar care; I shall hope to be excused, if my observations should be extended to greater length, than may appear to be necessary; and if they should sometimes be directed to objects which may seem not to have any immediate connection with the principal subject.

By these remarks I certainly do not mean to represent, that nothing has been written on the complaints now under consideration; because it is well known, that every writer on dyspepsia, and especially the later writers, have spoke of certain affections, which depend on nervous sympathy, and which always accompany that disease, in a greater or less degree. And besides this, the nervous temperament, and the disorders which more especially belong to it, have been made the subject of an excellent treatise by Dr. Trotter; and the diseases to which literary men are particularly liable, of which sympathetic affections constitute a considerable part, have been treated of in a separate form, by Dr. Johnston. But however excellent these publications may be, and however ably and satisfactorily they may treat the subjects which they were particularly designed to elucidate; they nevertheless do not enter so fully into a consideration of those sympathetic diseases which I have now in view, as to enable one to distinguish them with that readiness and ac-

curacy, which he might do from a more minute and particular description. It was not their design to treat expressly of these complaints, and therefore they did not give such an account of them, as to render a farther investigation of the subject unnecessary.

In those works on dyspepsia to which I have alluded, these sympathetic affections are considered only as symptoms of that disease; whereas they ought in my opinion, to be considered as distinct complaints, though most generally, perhaps, arising from the same causes which produce that disease. My reasons for this opinion are, in the first place, that they sometimes manifest themselves, and in the most distressing degree too, in persons whose digestive functions are performed in the most regular and healthy manner; and in the second place, that in many of the most severe cases of dyspepsia, these sympathetic affections are not present.

It is not a point, however, of much importance, so far as regards the suffering with which they are attended, or the means by which they are to be relieved, whether they are to be considered only as symptoms of dyspepsia, or as constituting a different kind of morbid derangement; for in either case they are equally deserving of attention. We know that the same disease in persons of different temperaments exhibits, in many respects, very different phenomena; and we can therefore suppose it possible, that owing to a peculiar nervous susceptibility, a very slight degree of dyspeptic derangement, may produce the most alarming train of those symptoms which attend sympathetic affections of the heart and other vital organs. And on the other hand, it is no more difficult to suppose, that without any dyspeptic affection of the digestive organs, there may be such a morbid state of the nervous sympathies existing between these organs and those which are most liable to suffer from disordered sympathy, as to give rise to all the disorders of which I am speaking. But as I have already observed, this is a question of no essential importance, and will therefore engage our attention no longer.

It is certain, however, that the affections of which I am speaking, derive their origin through the medium of sympathy, from the digestive organs, whatever the truth may be, with regard to the question that has been considered; but as to the particular condition of these organs, which disposes them to exert a morbid influence on other and distant parts, I believe nothing satisfactory can be said. Theoretical speculations on this subject, as well as on most other subjects of medical inquiry, can lead us to no conclusion on which we can safely rely.—It is only by an attentive and accurate observation of the phenomena which these affections present, that we can expect to arrive at any certain knowledge of their pathology.

This is, indeed, the only way in which any considerable progress can be made in any branch of pathological science; and if it had been pursued more generally, and with a more scrupulous regard to plain matters of fact, than it has been, we should be much less perplexed with doubt and uncertainty, respecting many of those diseases which are of frequent occurrence, than we now are. This remark applies particularly to the complaints now under consideration, for I am inclined to believe that there are no diseases of such frequent occurrence, as these sympathetic affections, which have been so ineffectually investigated. One reason of this is, the real difficulty of ascertaining the nature of those diseases which depend on a morbid nervous sympathy, on account of the great variety of phenomena which characterize them, and also on account of their being seldom attended or followed by any organic lesion, from which a satisfactory conclusion can be drawn. Another reason is to be found in that almost universal propensity to indulge in hypothetical speculation on medical subjects, and especially on subjects that are obscure and difficult to be investigated, which has always been a great obstacle to the progress of medical science; but at no period, perhaps, more than at the present time.

As the opinion which is here intimated may be deemed erroneous by many, I trust I shall be excused for saying a few words more on this subject. I am well aware, that there never was a

greater amount of talent and learning employed, nor a greater degree of zeal manifested, in the cultivation of medical science generally, and especially some of its more important branches, than at the present time; and I am certainly as ready as any one, to acknowledge and duly appreciate, all the real improvement that has been made. But I must at the same time declare, that I do not regard as an addition to the science of medicine, any new opinion or doctrine, which is not founded on established facts, whoever the author or supporter of such opinion or doctrine may be. Now, let all the late pretended discoveries and improvements in the different departments of medical science be tried by this standard, and I am confident that a large proportion must be rejected, as no better than idle speculation. It is so much easier, especially for one who is endowed with a considerable share of imagination, to frame a theory with very few materials, that may seem sufficient to explain any given train of phenomena, than to deduce a correct principle or opinion from observation; that where there is found one of the latter there will be found many of the former. This is not said with the view to detract, in the least degree, from the praise that is justly due to any one who exerts himself in the cause of medical science; but only to express what I firmly believe to be the truth, with regard to the small amount of useful knowledge, compared with the large amount of unprofitable speculation, as exhibited in most of our late medical publications; and by so doing, to contribute a little perhaps, towards correcting an evil, which may certainly be very much diminished, if not wholly removed.

Again it may be said that the complaints of which I am treating, are not of so great importance as I appear to consider them. To this I would reply, that, as they are not often attended with local pain, and as the symptoms which characterize them do not often manifest much severity, they may indeed seem to be of but little importance to one who has never experienced them; but that they are very differently estimated by one who has been made acquainted with them by his own sufferings, or who has

carefully inquired into the effects which they produce in others. Indeed, it is only by these means, that any one can form a correct opinion of the extreme suffering which they occasion, and the consequent importance of making them a subject of diligent study; that the causes which produce them may be known, as well as the most successful method of treating them. Whether the danger which attends these complaints, is in proportion to the suffering which they occasion, is a question of very little importance to one who is labouring under them; for the man who is irresistably compelled by his sensations, to believe that immediate dissolution is impending over him, although there may be no real cause of alarm, suffers all the mental agony that he could do, if the dreaded event were actually taking place.— Indeed, it is impossible to form an idea of more exquisite suffering, than is often experienced by those whose nervous sensibilities render them subject to the sympathetic affections of which I am speaking. The most severe local pain, unless it arises from some disease or injury which threatens immediate destruction to life, is trifling and of easy endurance, compared with that undefined and indescribable distress, which, in many cases, attends these sympathetic complaints. For those who suffer under the former are generally able to satisfy themselves, in some measure at least, respecting the seat and extent of the disease or injury from which it proceeds, and can therefore estimate their danger with some degree of correctness, and do not suffer from an unfounded apprehension concerning the event; but those who are labouring under these sympathetic affections, especially if the heart is the organ that principally suffers, know not, either the precise seat or extent, of the morbid derangement from which their sufferings proceed; they only know that their sensations are of the most distressing and alarming character, which sometimes drive them to distraction, and always lead them to believe that they must be affected with some incurable malady. Now, if the preceeding remarks are well founded, as will be readily granted by every one whose attention has been particularly directed to the subject; can there be

any reasonable doubt entertained of the importance of acquiring a correct knowledge of these complaints, by strict and careful observation? But there is still another reason for investigating them with more care and discrimination than has yet been done, which I think ought to be considered sufficient of itself, to induce every medical inquirer to make them a particular subject of study; and that is, the mistaking these sympathetic affections for some organic and incurable disease. This mistake is especially apt to be made when the influence of morbid sympathy is principally exerted on the heart; for then it sometimes happens, that the irregularities in the action of that organ are considered as certain indications of an incurable disease of its structure. I am not now speaking of what reason would plainly teach us might happen, but of what I know, and no doubt many others know, actually has happened; and I am induced to believe by the observations which I have had an opportunity of making, that it happens much more frequently than is supposed, at least by those who derive their opinions from late publications. Indeed I am most fully convinced, that although organic diseases of the heart may be more frequent at the present day than at any former period; yet they are by no means so frequent as they are represented to be. Many of those cases of disordered circulation which are considered and treated as hypertrophy of the heart, are nothing more, as I have reason to believe, than the effects of the morbid sympathy existing between the heart and digestive organs, particularly the stomach and upper part of the intestinal tube; and instead of being relieved by the treatment which is pursued for that disease, and which would be very proper, if it were present, they are greatly aggravated.

(TO BE CONTINUED.)

## Adversaria.

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### ARTICLE. I.

LETTER to the Editor, from J. H. Cockey, pupil of the Baltimore Infirmary, on the use of Turpentine in Ptyalism.

*Baltimore Infirmary, December 23d. 1830.*

TO PROFESSOR SMITH,

Sir,—I observed in the last number of the American Journal of the Medical Sciences, a communication from Dr. Geddings of Charleston, South Carolina, on the use of Turpentine in Ptyalism; and having in many cases remarked the inefficacy of the means usually adopted, I proposed, with the concurrence of the learned Professor in attendance on this Institution, to test the advantages of the article in question.

Four or five cases have been presented, in which I have administered it as recommended,—Ol. Terebinth. 2 drachms Mucil. Gum-Arabic. 8 ounces.—In every instance the relief obtained answered my expectations. Two of the cases were of unusual severity; in one instance, a patient was admitted who had just arrived from Savannah, where he had contracted a bilious fever of a high grade, to subdue which, calomel had been freely given, and with its too frequent consequence—a very profuse salivation; all the symptoms that mark the worst cases, were present. I prepared a wash agreeably to the above recipe, and directed him occasionally to gargle his mouth with it; the relief it afforded from the intolerable pain and burning, was soon manifest.

In some cases, a larger proportion of the Ol. Terebinth. was used than enters into the recipe above. In increasing the quan-

tity, I was influenced by the degree of smarting, more or less of which it always occasioned when first taken into the mouth. This effect, however, was transient, and was very soon succeeded by its soothing influence.

The advantages of a remedy which promises more benefit than those generally used, will be appreciated by all who may labour under this very painful and loathsome malady. Presuming that, through the medium of your Journal, the article under consideration may perhaps meet the eye of some gentlemen, who have not seen Dr. Geddings' paper, this notice of its use in the cases alluded to above, is submitted for their consideration.

JOHN HANSON T. COCKEY.

The Profession will thank Mr. Cockey for the above. There is no greater desideratum in medicine, than some article on which we may rely, to relieve the intolerable pain and loathsomeness of salivation. The physician rarely escapes censure because of its occurrence, and the reproach is double because he can not arrest, or alleviate it. Mr. Cockey's report will confirm the observations of Dr. Geddings and make them more generally known.

ED.

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## ARTICLE II.

### *Treatment of Venereal Affections.*

The Editor of this Journal designs shortly to furnish a brief memoir on the Treatment of Venereal Affections—setting forth the method which is pursued at present, we think with success, in the Baltimore Infirmary. There is scarcely any subject in medicine in regard to which there at present prevails a greater difference of opinion—or, indeed, a more unsettled state of opinion. Many are beginning to use with hesitation the old remedies in the treatment of Venereal—others have had their confidence in them so staggered that they fear to touch them, and yet they are not altogether satisfied with the new lights on

this subject. Nothing can be more disagreeable than this state of doubt and uncertainty—nothing more productive of a vacillating practice.

Our experience is to a certain extent hostile to the anti-mercurial plan of treatment. This method, it is true, we have in some instances practised with success; but it was only in those in which mercury had perhaps previously been abused—or those in which the disease had previously existed and been treated with the free use of mercury.

We are disposed, with equal decision, to condemn the *active* employment of mercurials, and the production of salivation.—We have often found the mercurial excitement to incorporate itself with the disease under these circumstances, and to render it infinitely more unmanageable. Its influence, it appears to us, is in a great measure lost on the disease as soon as the medicine begins to spend its force on the mouth.

True lues we treat with small doses of the blue pill—not more in most cases than 3 or 4 grs. daily,—associated with the compound decoction of Sarsaparilla—low diet and horizontal posture.

## Analytical Reviews.

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SELECTED FROM THE MEDICO-CHIRURGICAL REVIEW.

ART. I.—*A Treatise on Hysteria. By George Tate, Member of the Royal College of Surgeons.*

An ignis fatuus that bewitches,  
And leads men into pools and ditches.

**HYSTERIA** has certainly bewildered the practitioner as much as any disease in the extensive catalogue of human infirmities; but as it is not considered dangerous, and as it assumes so many different shapes as to be almost indescribable, it has not hitherto obtained the honor of monography in the English language. Mr. Tate's endeavor to draw attention to a malady, which is a kind of epitome or imitator of all the other diseases to which flesh is heir, deserves, and will, no doubt, receive, the serious consideration of his brethren. The following quotation from the opening of the second chapter, will probably be objected to, as simplifying too far the etiology of hysteria.

"With the exception of those cases, real or affected, which are so frequently occurring in what have been called 'the refined circles,' occasioned sometimes by sudden impulse, and sometimes by mere caprice, Hysteria, in all its varieties, whether it be mild, yielding to a brisk cathartic portion,—whether it be of another form, lasting for weeks,—or whether it be more obstinate, persisting for months, or even years,—has one common cause which is essential to its appearance; namely,—an irregular or defective menstruation.—Since I have been attentive to cases of Hysteria, I have never seen one, (with the above unimportant exceptions,) either of a simple or of a complex character, in which there did not co-exist distinct traces of a faulty menstruation. There is always some deficiency or some depravity of this secretion: it will be found sometimes altogether suspended; sometime redundant, or too frequent in its recurrence; sometimes dark and grumous; at others, pale and watery; sometimes it is attended with agonizing pain and sickness.—Sometimes, also, Hysteria will take place previously to, and be in-

dicative of, the first appearance of the menses; and sometimes it will occur when these are about to be no more seen. The common conditions, however, under which Hysteria prevails, are catamenial suppression, insufficiency, or depravity." 12.

The author will not positively deny that hysteria does not take place in men; but he has never seen such a case, and reasoning induces him to doubt its existence. He thinks it probable that such instances as are on record, were cases of chorea, and not of hysteria.

"Debility produced by, or at least combined with, a deranged state of the stomach, liver, and bowels, certainly predisposes to Hysteria; and delicate females, who are easily excited, are more susceptible of it than the robust; but there is still something wanting to account for the singular phenomena that this affection exhibits. These phenomena are different from those presented by any other disease: they are perpetually changing their character,—adopting the image of the most terrific maladies,—and are scarcely ever seen in two cases precisely alike. The cases to be afterwards adduced, will, I think, prove conclusively, that defective menstruation is solely accountable for all these manifestations, whatever may have occasioned that function to be deranged. I assume this, because, in the first place, Hysteria is not confined to women of a delicate texture, but sometimes attacks the most hardy and the most healthy; and, secondly, because a suppressed or disordered uterine secretion is always the forerunner of it, in whatever shape it presents itself." 14.

In the third chapter, Mr. Tate divides Hysteria into three degrees of intensity. The first or mildest degree occurs almost invariably between the ages of 13 and 45—is always accompanied by some irregularity of the menstrual discharge—and often by disorder of the digestive organs. The characteristics are well known—alternate fits of weeping and laughing—starting and screaming—death-like stillness and gigantic struggles—*clangor intestinorum*, *globus hystericus*—pale urine, the latter not constant. For the cure of this degree of hysteria, the most nauseous drugs selected from the three kingdoms of Nature, have been freely administered, and "as hysterics are occasionally brought on by passions of the mind, the patient had only to make her election, either to exercise at once a becoming control over herself, or to indulge her sensibility at the expense of being drenched with the most suffocating liquids in the world, and of having her convulsions of caprice exchanged for convulsions of disgust." In such cases, the penalties may (he thinks) be well incurred, and may perhaps tend to induce susceptible young ladies to divest themselves of fanciful illness. We are

not, however, quite so well satisfied as Mr. Tate seems to be, that even this first grade of hysteria, is ever actually *fanciful*. If the corporeal disorder arise from mental emotions, it is as real while it lasts, though not so difficult to conquer, as when resulting from uterine irregularity. But as Mr. Tate admits that this first grade of hysteria, exhibiting, indeed, its simplest form, may "arise from some mental emotion, where there is clearly *nothing wrong in the animal functions*," the admission is fatal to his etiological conclusion, that hysteria is essentially dependent on "irregular or defective menstruation." If a mental cause can produce the disease in one degree of intensity it will be difficult to persuade the profession that the same cause may not be adequate to the production of a higher grade of the malady. Mr. T. protests against the utility of the foregoing remedies in the more common forms and degrees of hysteria, where the disorder is connected with a corporeal malady.

"The first object, in the treatment of this form of disorder, is to cleanse the bowels; and this is most effectively done by a brisk cathartic of calomel and jalap, followed by castor oil. In a great majority of cases, a brisk action upon the bowels will be attended with immediate relief of the fits or paroxysms, or whatever else they may be called, and they will rarely return if the subsequent practice be judicious: which consists merely in avoiding stimulants; in living on a bland and nutritive diet, and taking aloes and iron with some aromatic oil, until the uterine and alvine secretions are properly regulated. It has frequently happened, in the course of the few years that I have been in practice, that after having relieved a young female from the immediate attack, I have represented to her mother the necessity of repairing the deranged state of her general health; and those girls who have been for years deprived of their natural health, going about with sallow and sickly faces, parched and pallid lips, furred tongues, and limbs incapable of the least exertion, have been indebted to a few doses of calomel and jalap, followed by pills of aloes and iron, for the perfect re-establishment of their strength, health, and beauty." 19.

This treatment, however, will only apply to the first degree of hysteria occasioned by "over-excitement of mind and nothing more"—but where the fits recur frequently, and where "the general health and uterine secretion are found to be deranged—the same treatment is not only useless and unreasonable—it is positively mischievous."

#### *Hysteria of the Second Degree.*

This is of much more serious consequence than the former. It generally arises suddenly, with some singular and unaccount-

able symptom, very alarming to the patient's friends, and occasioning the sudden summons of the medical attendant. If he be not on his guard, he will be very apt "to mistake this disorder for some real disease or some active internal inflammation. He may thus do more mischief than all his subsequent treatment can repair." We shall abbreviate a case or two in illustration.

*Case 1.* A. W. aged 19 years, a rosy-cheeked healthy-looking girl complained, on the 22d of April, of violent pain in her eyes, which seemed inflamed, and discharged a copious flow of scalding tears, with extreme intolerance of light. This had come on without previous shivering or other warning, a few hours previously.

"The conjunctiva was about as much injected as it is generally after a violent fit of crying. She was immediately bled from the arm; and after losing about eight ounces of blood, she opened her eyes, and declared she could see as well, and bear as much light as ever she could in her life. The pain, also, was nearly gone; and this without any fainting or any perceptible tendency to it. She was then ordered to go home, to keep quiet and to live low for a day or two; calomel and jalap, with sulphate of magnesia, were also prescribed for her. At about four o'clock on the following morning, I was called up to go to her immediately, (six miles into the country) as the people about her declared she must die, unless she could obtain instant relief. I found her seemingly in agonies. Her eyes continued well; but she was breathing with such excessive rapidity as I can only compare with that of a hound after a hard run, and with much the same kind of muscular distress. Her hand was pressed firmly against her left side, beneath the breast, where her gestures (for she could not speak) signified that she was suffering acute pain. It was impossible to ascertain the state of her pulse, in consequence of the agitated state of the respiratory system, to say nothing of her terror; but her chest sounded well, and she was in a profuse perspiration, attended with high heat of the whole surface of the body. Upon inquiry, I found that she had not menstruated for fourteen weeks, and for more than twelve months very inadequately to her former habits; and had complained of pain in her left side, with occasional palpitations. These circumstances shed some light upon the rather puzzling appearances of the case, and went a great way to determine its real source and character. I then had her turned round, to get an examination of the spinal column. On making pressure upon the four uppermost dorsal vertebrae, she complained of great tenderness, and pain; which was referred to the left side, and to the scrobiculus cordis. As I had always found these, or some other divisions of the spine, tender, on the application of pressure, in urgent cases of Hysteria, I was quite satisfied that this was nothing more than a mysterious case of that description. The fugitive nature of the apparent ophthalmia, the seat and kind of pain

in the left side, the pain in the dorsal vertebræ, with a suspended menstruation; all concurred in giving it this and no other character. Although not expecting much benefit from it, at the solicitation of friends, she was again bled, with scarcely any relief. The treatment which I chiefly relied upon was the tartar emetic ointment to the spine. This was applied along the whole course of the dorsal vertebræ, three times a day; and she took calomel and cathartic extract, followed by an aloetic mixture, every four hours." 24.

Dark and offensive evacuations followed, and the pain and quick breathing were relieved. When the tartar-emetic had produced a copious crop of pustules the other symptoms gave way, and she gradually recovered health and strength under the use of aloetic medicines with steel. But the catamenia did not appear, and at the end of six weeks, she was again attacked in a precisely similar manner. The tartar-emetic was re-applied, and again she recovered. Under the use of aloetics she at length menstruated, and there was an end of the business. The next case we shall give in the author's own words:

*Case 2.* "Miss W., aged 15, was taken ill at a boarding school, in April, 1826. For a few days she had complained of head-ache and loss of appetite; and without any further warning, awoke on Sunday morning, after a tranquil night, with a train of symptoms resembling Tetanus. Her governess sent to me in great alarm.—The following was pretty nearly her condition when I first saw her: she was lying upon her head and her heels, her back being thrown into an arch, and scarcely touching the bed-clothes. Her arms were flexed and rotated inwards; her fingers violently closed, grasping her thumbs, which were stuck into the palms, in a way that is frequently seen in hydrocephalic children. Her toes were bent inwards, and her legs bent and twisted in the same manner as her arms. It was with great difficulty that her hand could be forced open, although the attempt did not much annoy her. She was perfectly sensible, and complained of violent heat and pain in the head. Intolerance of light was very great; and when her eyelids were opened, she squinted frightfully. Her respiration was short, and she complained of pain in the side, and palpitation. Her pulse were 110; her tongue clean; skin hot, but covered with moisture; she was thirsty, and said her mouth was dry. Her general health had been previously good. *She had never menstruated.* Such was the striking appearance of the case; which, from the suddenness of the attack, after passing a good night, and from her having never menstruated, with the corresponding symptoms, I strongly suspected was nothing more than a strange form of Hysteria. Under this impression, I examined the spine, and the moment pressure was applied between the scapulæ, upon the upper dorsal vertebræ, the patient complained of pain, which was also manifested in the shrinking expression of her countenance. That which was conjecture

before, thus became matter of certainty, and I felt myself warranted in assuring the governess, who was naturally in considerable alarm; that these formidable symptoms were mere phantoms, which would readily disappear; and that a few days would, probably, be sufficient to restore her to her usual good health. The infraction of the tartar emetic was immediately begun throughout the dorsal region; and calomel and jalap were prescribed for her. As soon as the bowels were freely evacuated, her head was better, and respiration was relieved; but the spasmodic, or rather tetanic affection, did not yield at all. In about thirty-six hours, the antimonial ointment had accomplished its duty; when the spasm was immediately influenced, the flexors gradually relaxed, and, in less than twenty-four hours after the pustulation was developed, not a vestige of the disorder remained. The contractions returned twice or thrice, to a partial extent, in the course of the following month, sometimes one thumb, and at another time one or two fingers, being bound down; and, upon one occasion, this lasted for several days; when a second application of the ointment was, very reluctantly, consented to. She had, afterwards, no return of pain or disorder. During the whole of this time, aloetics, with iron, were daily administered; and, at the expiration of five weeks from the accession of her illness, she menstruated, and was afterwards quite well. Thus proving, very satisfactorily, that the amenorrhœa was the source of the vertebral irritation; and that this, in its turn, produced the other ailments. . 29."

*Case 3.* This was also a young lady, who had been out of health for four years. When first observed by Mr. Tate, she had acute pain in the left side, increased on inspiration but relieved by pressure. She also complained of pain in her head and oppression about the chest. She would occasionally fall down apparently lifeless, and lie so for half an hour, recovering at intervals and then speaking rationally. When seemingly comatose, her breathing would be suspended for ten minutes or longer at a time, or carried on with such subtleness that no air escaped her lips. Then a rapid gasping would follow, to be succeeded by another death-like stillness, &c. All this time the pulse was quiet and regular. She intreated Mr. T. to bleed her, which he did, suspecting that there was some disease of the heart; but he soon saw the case in its true colours. Having convinced himself that there was no disease of the head or thoracic organs, he proceeded to examine the spine, where he found uneasiness complained of when pressure was made on the dorsal region. "Upon increasing the pressure, the pain was increased, and passed through to the pit of the stomach and to the left side, at the spot so complained of—causing the breathing to be oppressed." The catamenia were found to be unusually scanty and dingy. The antimonial ointment was applied to the spine, and as soon as the eruption came out the relief was aston-

ishing. "The fits went off, the head and side were no longer complained of, and the palpitation gradually subsided."

*Case 4.* "Elizabeth M., aged 20. Early one morning, I was sent for to this young woman, and found her in bed, where seven or eight persons were employed in keeping her by main force. She had complained for some days of a bad head-ache; was of a pale, delicate complexion, of a very slender frame, and had been for many months without any uterine evacuation. She had waked in the night, screaming out like a maniac, to the terror of all the family; and, in attempting to get out of bed, had fallen back in a state of insensibility, and had continued so up to the time of my arrival. She was struggling with amazing violence; her eyes were staring wildly—she was grinding her teeth,—her hands clenched, and every muscle of the body seemed to be thrown into a state of most tremendous spasm. This was Hysteria, clearly enough. So far there was little difficulty in deciding. Her pulse being rapid and bounding, some blood was drawn, but without affording her the smallest relief. Calomel and jalap were, with some difficulty, forced into the stomach. When these had copiously relieved the bowels, she became calm, and the convulsive throes ceased; but the insensibility was unabated, and she lay like a girl perfectly dead, till the middle of the following day. I had already begun the tartar emetic function, and when she was sufficiently sensible to answer, I traced the course of the spine, and she complained and shrunk away when the fingers were applied upon the dorsal vertebrae. The pain was felt through the whole chest, particularly at a spot beneath the left breast. Indeed, I have scarcely met with a case in which the spinal affection was more strongly and clearly marked. Besides the tenderness of the spine, and the pain in the left side, there was, in this case, excessive tenderness in the right side, under the margin of the ribs; this was so great, that she dreaded the slightest manual examination, even before she was touched. The pain was confined to the hepatic region, but was too acute and too superficial to inspire a suspicion that it was connected with visceral disease. It was, as well as that of the other side, occasioned by the spinal disorder; and as soon as this was relieved by the usual application of the castilee, and the menses were restored by the usual combination of iron and aloes these pains were dispersed, and the young woman afterwards acquired greater strength and better general health, than she remembers to have enjoyed at any former period of her life. This, as I before remarked, has been the usual result of Hysterical cases, treated in the manner above described." 85.

The symptoms of hysteria of the second degree are thus adverted to. *First*, there is defective menstruation. This our author considers as the "head and front of the case"—the original cause of the disorder. The next circumstance, "and the most important of the whole list," is "distinct pain upon the

application of pressure or of heat, to three or four of the six superior dorsal vertebræ." Upon this point our author desires to fix the attention of his readers—"for his spinal affection, whatever its intrinsic quality, is clearly chargeable with most of the curious images, and fantastic forms, that Hysteria is accustomed to put on; and yet, notwithstanding its constant occurrence in these forms of Hysteria, and its frequent existence where there is even a *tendency* to Hysterical disorder, it is a circumstance that has been overlooked by those who have professed to treat upon the subject, as well as by those who, for the sake of gratifying curiosity, have published detached cases of Hysteria under various other designations." In other parts of the spine, especially in the lumbar vertebræ, pain is frequently complained of; but in the dorsal region no uneasiness is usually felt till pressure be made. Proceeding downwards along the spine, the patient shrinks when we reach the dorsal vertebræ, and she acknowledges the existence of pain, which sometimes, not always, shoots through to the chest or to the left side, sometimes to both, generally oppressing the breath. Mr. Tate does not attempt to account for this curious phenomenon. He contents himself with stating the fact, leaving others to unravel its philosophy. Fortunately, or unfortunately, no opportunity of examining the spine, *post mortem*, has occurred among his hysterical patients; and, therefore, the precise pathological condition of the part must be matter of conjecture.

The pain in the left side is next to be attended to.

"It is usually situated immediately below the left breast, in a hollow formed between the cartilages of the fifth and sixth, or six and seventh ribs; it is generally so circumscribed, that it may be covered by a shilling; and is of the gnawing kind. Occasionally, however, it is most acute, feeling as if a knife were being struck into the spot, and the patient cannot forbear screaming. This pain is complained of for some time before the invasion of the Hysteria. The patient is often observed to incline the upper part of the body to that side, dropping the left shoulder, which relaxes the painful part and affords some relief. The act of raising the left arm above the head, or of bringing the body into a perfectly erect position, is attended with an increase of pain. I apprehend this pain is really seated in the intercostal nerve, although I have sometimes thought it must be situated in the nerves of the heart itself; as it is difficult to account for its perpetual preference for the left side. The right side, certainly, is often not exempt from pain; but, in nineteen cases out of twenty, the prominent grievance is in the former; and in the like proportion of instances, I can put a finger on the spot with as much certainty as if it were visibly marked." 48.

Mr. T. is convinced that many spinal curvatures have arisen

in consequence of this pain, causing a tendency to lean the body constantly towards the affected side.

Palpitation is another symptom which is almost always present. So is pain in some part of the head, generally in the front or occiput, or both. Globus hystericus though not always present, is very often so.

### *Hysteria of the Third Degree.*

It has been stated that the various forms of this kind or degree of hysteria, appear to be caused *immediately* by the spinal affection, which, in its turn, is the result of some occult association or sympathy between the spinal cord and the uterus. We have, therefore, two indications to fulfil—the removal of the immediate cause of the hysterical evolutions; and the restoration of uterine vigour and health. The modes of accomplishing these objects are fully pointed out in the cases above detailed.

“In some instances, where the patient is very robust,—the cheeks highly flushed,—the eye injected,—the forehead red and polished, it may be useful to abstract blood by the lancet; but it rarely does much good, and, as far as I have seen, never relieves the immediate attack. But when symptoms so sudden and alarming make their appearance, a medical man is expected to do something *instantly*; and in strong young women bleeding does no harm. In delicate girls, on the contrary, it aggravates the disease tenfold; and renders the cure infinitely more difficult and tedious than it would otherwise be. As a general rule, therefore, venesection should not be performed, without some very substantial reason. It neither removes the pains, nor the spasms; but very often prolongs both.” 47.

Having made a careful examination of the spine, and ascertained the seat of pain, the first thing to be done is the application of the tartar-emetic, either by friction or plaster on the spot. If the symptoms be urgent, whether cataleptic, choreiform, tetanic, hemiplegiac, or Proteian, the application should be carried along the whole course of the vertebrae—and this should be done every six or seven hours, until the pulsation is fully developed. “The hysterical symptoms will then yield, and the patient will become calm and sensible.” But, as the cause of spinal affection, the uterine disorder, is still in operation, it is sometimes necessary to establish the eruption, *per se*, in order to secure the patient from relapse.

Leeching has always failed to relieve the spinal tenderness in our author's practice; and the same may be said of blistering. Purgatives are necessary, as auxiliaries. The evacuations are generally black and unhealthy at first.

"We have thus disposed of the immediate attack; but another important indication in the treatment remains to be considered.— This is to re-establish a healthy and vigorous menstruation. Now the mal-performance of this important function may be of several different kinds; it may consist in absolute suspension or suppression; in being before or beyond the usual period; in being of a dark and grumous, or of a very pale complexion; it being too copious or too small in quantity; or in being attended with excruciating pain.— Such being the various states of disorder, it will be seen how impossible it is to lay down any rule of treatment that can be universally applicable. Each must be separately considered, and treated according to the discretion of the practitioner, upon the usual principles; in first of all, improving the secretions, and placing the digestive apparatus in a state of reparation. After this has been effected, wholesome air, wholesome food, and wholesome exercise, with preparations of iron, and the use of the warm, tepid, cold, or shower bath, according to the circumstances, will generally be the best tonics, and restore the patient to her usual health and strength." 51.

Mr. Tate next introduces a number of cases, chiefly from the Medico-Chirurgical Review, where the patients evidently laboured under hysteria, but where the diseases were designated by various appellations, according to the fancy or judgment of the practitioner. The criticisms on these cases are judicious and candid. The perusal of them will be advantageous to the reader.

With the following graphic sketch of the symptomatology of this third degree of hysteria, we shall close this section.

"As there is no regular set of symptoms that admit, as in common diseases, of being set forth as universally present to mark its nature, I must content myself with a general description of this form of Hysteria, leaving the body of the picture to be filled up by a report of cases. As before stated, in the most tedious form of Hysteria, menstruation is always more or less faulty at the onset, and as the case advances, this becomes suppressed altogether, or is performed very sparingly, perhaps only once in many months, and then with great pain. Where this function is quite suspended, there is, generally, neither any periodical pain, nor any sensation, to show that nature had not forgotten this customary duty. Shortly afterwards, the patient becomes weak and desponding, loses her appetite, and the bloom from her cheeks. She has still nothing particular to complain of, and, generally, keeps up her flesh, although it has every appearance of relaxation. If a medical man sees her now, he will find her with a moist and tremulous tongue; being foul at the root, and having the papillæ, at that part, larger than natural, and like little tubercles; with a tainted breath; depraved taste; little or no appetite; with a weak, languid pulse; with a sickly, yellowish com-

plexion; black or clay-coloured alvine secretions, and the urine highly coloured and scanty. In a little time, she will have pain under the left breast; which is increased by deep inspiration, and by reclining upon that side,—sometimes pain also in the right side, palpitations, flutterings, sinkings, and, together with these, there will be pain upon pressure in one or more parts of the spine: first of all, in three or four of the dorsal vertebræ; generally, also, in the lumbar, and, if the case be very lasting, it sometimes extends up to the very summit of the cervical portion. In such cases, the headaches are intolerable; being in some instances constant, in others interrupted, but always violent. The pain is often continued down the arms and into the legs; the extremities are generally clammy and cold.

“In the midst of all this, the patient is not much reduced in flesh, and, for a considerable time, it is not sensibly diminished. As the disease advances, a number of anomalous pains of a neuralgic character, become associated with the other symptoms. Thus, if pressure be made upon the supra or infra-orbital nerves, upon the inferior maxillary, &c. as they issue from their foramina, considerable pain is produced, but I never found these spots complained of, in the absence of such pressure. It is not, however, the facial nerves that are alone implicated, for almost every nerve in the body becomes, at the same time, endued with a similar increase of sensibility. This sort of neuralgic affection is seldom observed until the case is far advanced, and has become equally inveterate and puzzling.

“A condition of this kind will frequently prevail for eighteen months, before any particular notice is taken of it by the patient, or her friends: she gets gradually worse, until some sudden spasmodic affection, or other unaccountable symptom, commands attention; and then medical advice is obtained. At other times, where more solicitude is felt, earlier application is made to the followers of the healing art; and the patient is called a dyspeptic, or a hypochondriac, or a nervous lady; and, if judiciously treated, will gradually recover her health.” 95.

A remarkable and protracted case is next detailed, of which we can only give some of the more prominent features in this place.

Miss ——— became our author's patient in March 1825, after ten years illness, and having been under a pretty long list of learned doctors. She had menstruated at fifteen, and her illness commenced soon afterwards with a total suppression of the catamenia, referred at the time to cold. She was now so weak as to be incapable of walking across the room. Her complexion was sallow—her lips bloodless—pulse small and quick—tongue furred—bowels torpid—dejections various but morbid—urine clear.

"There was a fixed and lancinating pain in a hollow, between the cartilages of the fifth and sixth ribs of the left side; pain under the margin of the ribs of the right side; considerable difficulty of breathing, and frequent violent palpitations. The head-aches were almost incessant, and often nearly distracting by their violence.—There was pain upon pressure throughout the cervical and dorsal vertebrae; and pressure between the shoulders, aggravated the dyspnoea. She was sometimes seized with an uncontrollable vomiting, which lasted seven or eight days together; at which times, not a spoonful of cold water would remain upon her stomach; these attacks were ultimately tranquillized by opiate suppositories, leaving her strength completely prostrate. She scarcely ever closed her eyes to sleep, although her sufferings were so great, that she was lying in a recumbent posture, at times for days and nights together, with her eyes shut in silent agony. She appeared literally not to eat any thing. *She had not menstruated since the beginning of her illness, when she was near sixteen years of age.*

Slight vexation or surprise threw her into a paroxysm of hysteria. A tartar-emetic plaster was applied to the spine, which occasioned great distress, and as sickness came on about this time, it was placed to the account of the plaster. Mild aperients were given, and she gradually regained a little strength.—As she improved, the carbonate of iron was cautiously tried, but brought on the sickness again, and was discontinued. She went to Cheltenham, and a caustic issue was established over the seat of pain in the side, without effect. "After a short interval, the carbonate of iron was again taken, and it now did not appear to offend the stomach. The quantity taken at each dose, was increased, by slow degrees, from a scruple to half an ounce, three times a day; so that, at last, she may be said to have lived upon iron." Under this plan she rallied wonderfully. The pain was relieved—the bowels acted favourably—the head-aches were trifling—and the spinal tenderness scarcely perceptible. The catamenia returned once, and then ceased. She was able to walk and ride. She went to Bath, where a surgeon bled her once a fortnight, for a whole year. She returned to Cheltenham, and presented the following phenomena.

"She had now an irregular pulse—violent palpitations—edematous legs, even to the knees—cold extremities—shortness of breath—and a countenance indicative of exhaustion and distress. The left breast was very much wasted, as were also some of the muscles on the side of the chest: producing a degree of deformity, that was evident through her clothes. I earnestly entreated her to subject herself to no more such ruinous experiments; but to take wholesome food—to take as much exercise, as her strength would bear, short of fatigue; to take no medicine, but a tonic-aperient

pill; and to use the shower bath twice, and the warm hip-bath, three times a week. She then proceeded to Leamington, where she has followed these directions. Her health improves, but the wasting, and numbness, of the left breast and side, are making gradual progress. There appears little hope of her complete recovery, although she has already endured little short of a quarter of an ordinary life of diversified suffering." 99.

Mr. Tate thinks that this must be considered as an instance of prolonged and established disease, "resulting from original error, and continued series of mal-practice." If it be denied that this was a case of hysteria, Mr. T. asks what it was? The case is by no means a solitary one. "Daily are young females, afflicted with this very pain under the left breast, bled, blistered, leeches, cupped, and passed through a long course of depleting and enervating medicines, when there is no earthly necessity for it." We fear this is but too true.

But our limits are far overstepped, and we believe we have shewn samples enough of Mr. Tate's little work to induce the reader to peruse the original. It is really a very meritorious performance, and the coincidence of ideas between Mr. Tate and Dr. Addison, whose books were published on the same day, clearly proves that these ideas are taken from actual observation of facts.



